PROFILE '91

- Primary
- Elementary
- Secondary

Educational Performance Indicators

Government of Newfoundland and Labrador
Department of Education
Division of Evaluation

Authorized by the Minister

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(Primary, Elementary, Secondary)

Department of Education
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Division of Evaluation

Honourable Dr. Philip J. Warren
Minister of Education

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A Message from the Minister

Profile '91 - Educational Performance Indicators is one of the means by which the Department of Education informs the school system and the public about the extent to which the system is achieving its educational goals.

This second annual publication presents a wealth of information on student participation, achievement, attitudes, and values. *Profile '91* provides a picture of where our students are relative to a number of valued educational performance indicators. This significant information points out strengths and weaknesses in the system and offers valuable assistance in determining future directions for the education system.

As Minister, I consider this effort part of an essential monitoring and evaluation system aimed at establishing high expectations which will challenge all students to perform at their very best.

Phil Warren

PHILIP J. WARREN
Minister of Education

HIGHLIGHTS

- *The pupil teacher ratio in the province is at its lowest point ever; 15.2 to 1. Lower pupil teacher ratios tend to be in rural areas. Urban areas, where population is denser, have higher pupil teacher ratios.*

- *From 1989/90 to 1990/91, the percentage of students staying in school to graduation improved by a full five percent from 67 to 72 percent (to 73% if we include students receiving a school leaving certificate).*

- *The vast majority of students leaving school before graduation leave after entering their grade twelve year (or third year in high school).*

- *96.5 percent of 16 year olds are now in school compared to 91.3 percent five years ago.*

- *95% of our graduates successfully complete at least four science credits while 58% complete at least 8 credits.*

- *Enrolment in advanced mathematics has more then doubled since 1982. Enrolment in chemistry and physics has also dramatically increased. Both rural and urban participation have significantly increased.*

- *Demand for French immersion programs which increased dramatically during the 1980's appears to be plateauing.*

- *Girls in this province score as well as boys in mathematics and science.*

- *In the 1991 international assessment of 13 year olds in mathematics and science, Newfoundland performed slightly better than the international average, and three points below the Canadian average in mathematics.*

- *Students studying advanced mathematics through distance education performed better than the control group and the provincial average.*

- *Since 1984 when the first Grade 12 class (from the reorganized program) graduated, the percentage of students graduating has increased from 58% to 73%.*

- *A large number of adults who have not graduated from high school are attempting to receive a high school diploma by writing the GED, with a success rate of 62%, the highest in the Atlantic Provinces.*

CONCERNS

- *A large number of students are not graduating in spite of remaining in school until the Grade 12 year.*
- *Students in rural areas persistently have lower achievement than their urban counterparts.*
- *Mathematics results in Grade 6 have dropped significantly since the last CTBS testing in 1988.*
- *There is great variation in achievement across school districts and among schools within a district.*
- *Boys tend to lag behind girls in nearly all areas of achievement as measured by CTBS and public examinations.*
- *Achievement in the international assessment of 13 year olds in mathematics and science, indicates that science achievement is below the desirable level.*
- *There are great variations in French immersion performance from school district to school district.*
- *There are significant differences in graduation rates for males and females (almost 10% in favour of females).*
- *The fact that 40% of students who write the GED are under 25, and that they generally do well, suggests that they could have graduated from high school. Why didn't they?*
- *No boys indicate that they like to go to school; while 23% either hate or don't like school.*
- *In 1991 a greater number of high school students feel depressed and worried and fewer ask their parents help, or value their parents' advice, than in 1988.*

Profile '91 is the second edition of an annual publication designed to examine the education system. It seeks to keep the public and the educational community abreast of major trends and developments in the school system of the province. As with *Profile '90*, the information contained in this publication provides a comprehensive survey from three major perspectives; participation in school, intellectual achievement, and attitudes and opinions (indicators of personal and social development).

Organizations, whether government or private sector, in order to be effective, need to step back and take a look at whether their goals are being achieved and whether these goals are current and appropriate to today's changing needs. They must know if programs and services are appropriate to the needs of their client population, and whether these reflect a standard comparable to those of other local, national and international organizations that offer the same kind of services. The only way for an organization to accomplish this type of accountability is by monitoring and evaluating on an ongoing basis.

The educational system in this Province is such an organization. The teachers, principals and administrators provide the structure of the organization; the students are the client population and the public, in essence, is the owner of the system. Within this system, students are entitled to the best possible educational environment that our resources, human and financial, can provide.

We have added a number of new indicators to this edition and have improved the graphics to maximize the usefulness of the information presented. For example, in response to suggestions from the field we are reporting public examination and school evaluation information separately. We have also included information on Distance Education, the GED testing program as well as several other areas of assessment.

All sources of all data used in this document, unless otherwise specified, are the data bases of the Department of Education.

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1.1 Why a provincial profile?

The K-12 system in the nineties is being judged on the kind of product it produces. There is a call for the education system to be more accountable for the quality of education it delivers. The focus is shifting from quantity to quality and the system is responsible for making the necessary improvements. The general consensus which is supported by comparative data is that our top 10% of students perform as well as the top 10% in any other province. The problems are more localized at the middle. Our challenge is to bring up the performance of this large segment of the student population.

This whole area of improving the performance of students and the effectiveness of schools relies very heavily on:

1. the availability of and access to good student evaluation information;
2. the development of indicators of performance. These include student achievement indicators and indicators of school and system performance;
3. developing effective feedback mechanisms to provide teachers, principals and district personnel with comparative information on how effective they have been in achieving goals and reaching standards of performance;
4. the commitment of the education system, at all levels, to the use of available information in planning and in decision making.

So why a Provincial profile? An educational profile is a collection of performance indicators; items of information collected at regular intervals to track the effectiveness of the system. Educational performance indicators tell us how close we have come to achieving our goals. Just as a doctor can use medical tests to assess the health of an individual, so indicators in education can help us know how well our schools are doing. Comparisons can be made from one year to another and from one geographical area to another. When used in the context of school improvement, the evaluation information collected by the Department, the indicators that are developed from this information and the subsequent analysis

which is performed, provides the system with key diagnostic information on areas of strength and weakness. When districts and schools effectively use this information they can focus on these areas of weakness, develop action plans to address the problems and monitor their progress towards gains in student achievement.

The net result will be improvement; improvement in student and school performance, improvement in the ability of our students to succeed in postsecondary institutions, and improvement in the ability of our students to compete in the global economy.

At the system level a good system of performance indicators enables us to judge whether or not a system is effective, efficient and accountable. And so we come to the second reason for publishing a Provincial profile; accountability. If we are to meet the demands society is placing on the educational system, we have no choice but to evaluate it and to use the information for decision making. The collection and reporting of accurate information about the system is imperative from both an accountability and a strategic planning perspective. It is therefore our hope that this profile will provide some important information about the following:

- how successful we are in keeping students in the school system;
- how successful we are in getting our students through the system to graduation;
- how well our students are achieving;
- how students and others feel about the quality of their school experience.

This profile describes education in Newfoundland today. It makes some comparisons with the past and points out some areas where we need to focus our attention for the future. Information we collect today about student participation, achievement, and attitudes will provide a sound basis for the decisions that we need to bring about system-wide improvement.

1.2 How are we organized?

The Province of Newfoundland has a denominational education system. Under this arrangement, responsibility for education is shared between the provincial government, through the Department of Education, and the major Christian churches through the denominational education councils. There are three such councils: the Roman Catholic Education Council; the Integrated Education Council, which comprises the Anglican, Moravian, Presbyterian, Salvation Army and United churches; and the Pentecostal Assemblies Education Council. The Seventh-Day Adventist church also operates a school system, but it has relatively few students and is not part of the denominational education council arrangement.

All matters pertaining to the day-to-day operations of schools are administered by the school district offices. This includes the organization and delivery of elementary and secondary education within their districts, the employment of teachers and support staff, the establishment of attendance zones, the repair and maintenance of school buildings, and the arrangement of pupil transportation.

Responsibility for all courses of study (except religion) and the selection and acquisition of suitable texts and support materials for the school system rests with the Department of Education. The Department directs the overall delivery of special education, school services, achievement monitoring, program evaluation, testing and high school certification. The Department is also responsible for the maintenance of educational data bases and record systems.

For the school year 1991-92 the number of school districts is reduced from 29 to 27 as a result of the consolidation of several small districts into the Western Avalon Roman Catholic school district. As of September, 1991, there were 512 schools in the Province, of which 57.2 per cent were Integrated, 33.6 per cent Roman Catholic, 8 per cent Pentecostal and 1.2 per cent Seventh-Day Adventist. In addition, there were 6 schools

classified as either private, native, institutional or Social Services schools. The total student enrolment for all schools in the Province was 125,133.[1] Of these 51.3 per cent were boys and 48.7 per cent were girls.

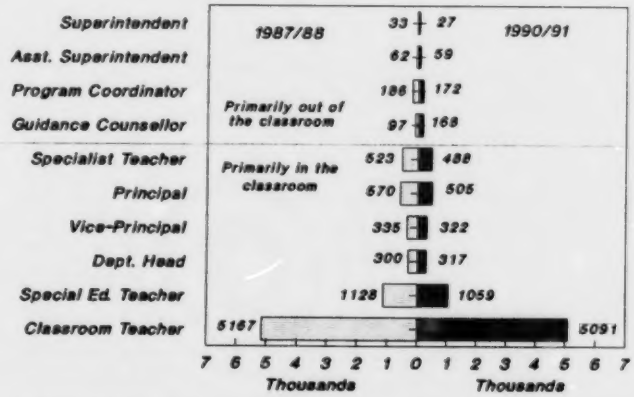
The number of educators at the school level currently stands at 7,951[1] which represents a provincial pupil-teacher ratio of 15.2 : 1. Of course, the actual pupil-teacher ratio will vary somewhat from region to region and district to district.

More than ever, our present teaching force is comprised of highly specialized and qualified teachers. These include principals and vice-principals, who may teach in addition to administering the schools; department heads; specialist teachers; guidance counsellors; special education teachers and classroom teachers. Special education teachers include teachers of the visually and hearing impaired, teachers of students with challenging needs (severely physically disabled students and severely mentally handicapped students), educational psychologists and speech pathologists.

An additional 258 educators are employed at the school district level. These include superintendents, assistant superintendents and program coordinators.

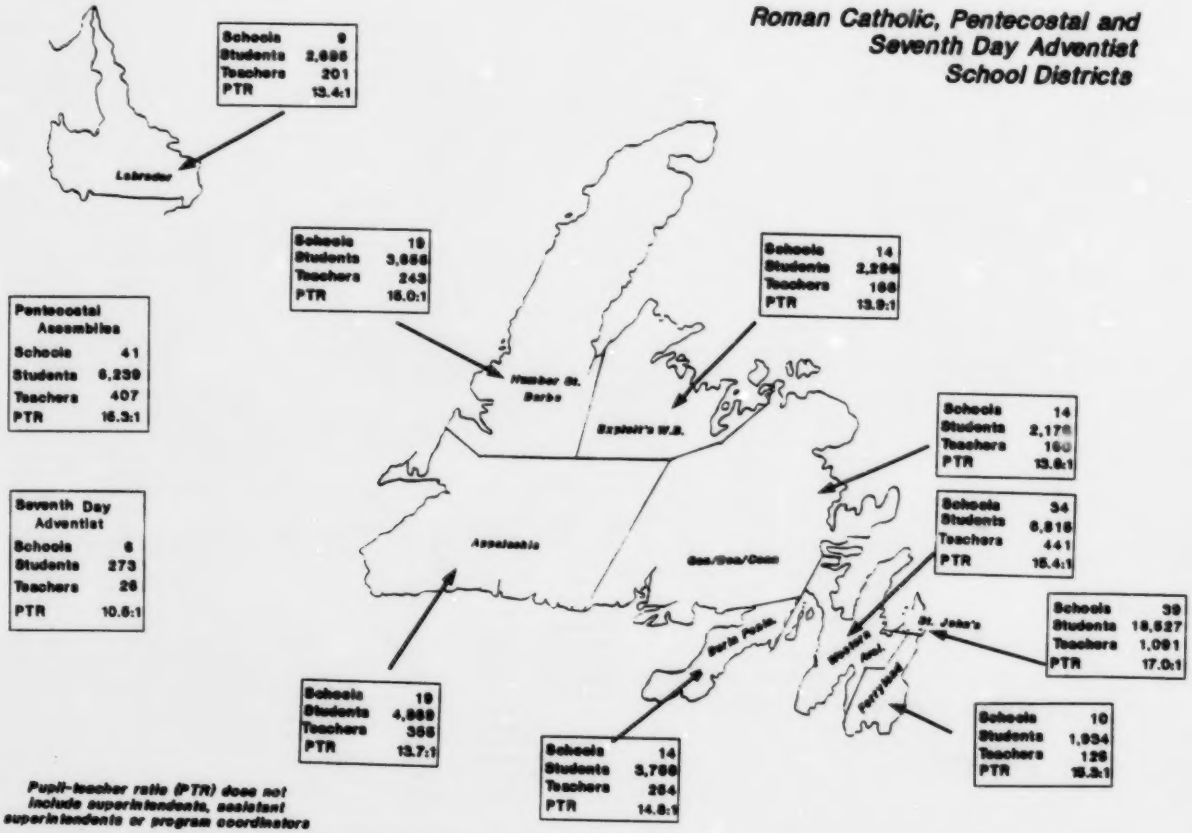
1 Full Time Equivalent

Full time equivalent personnel in the school system 1987-88 and 1991-92



▲ *Figure 1.2.1: Full time equivalent personnel in the school system, 1987-88 and 1991-92.*

1.3 How are our students, teachers, and schools distributed?



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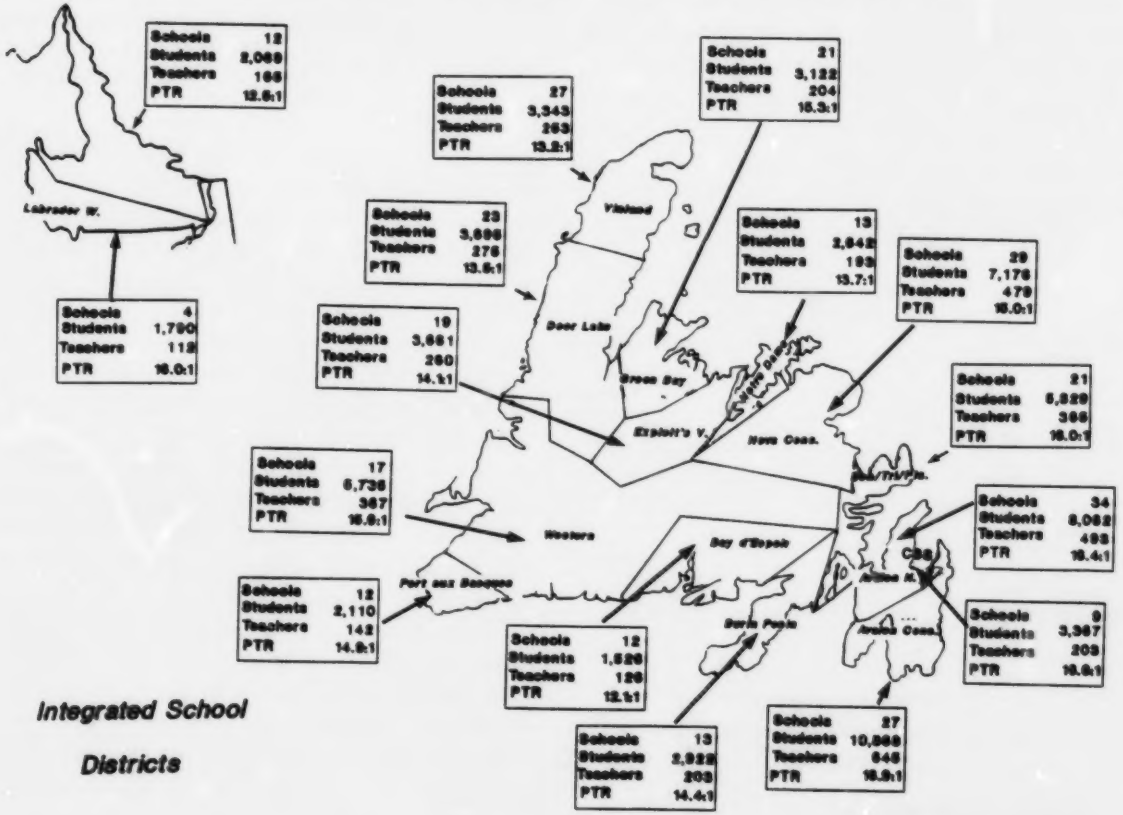
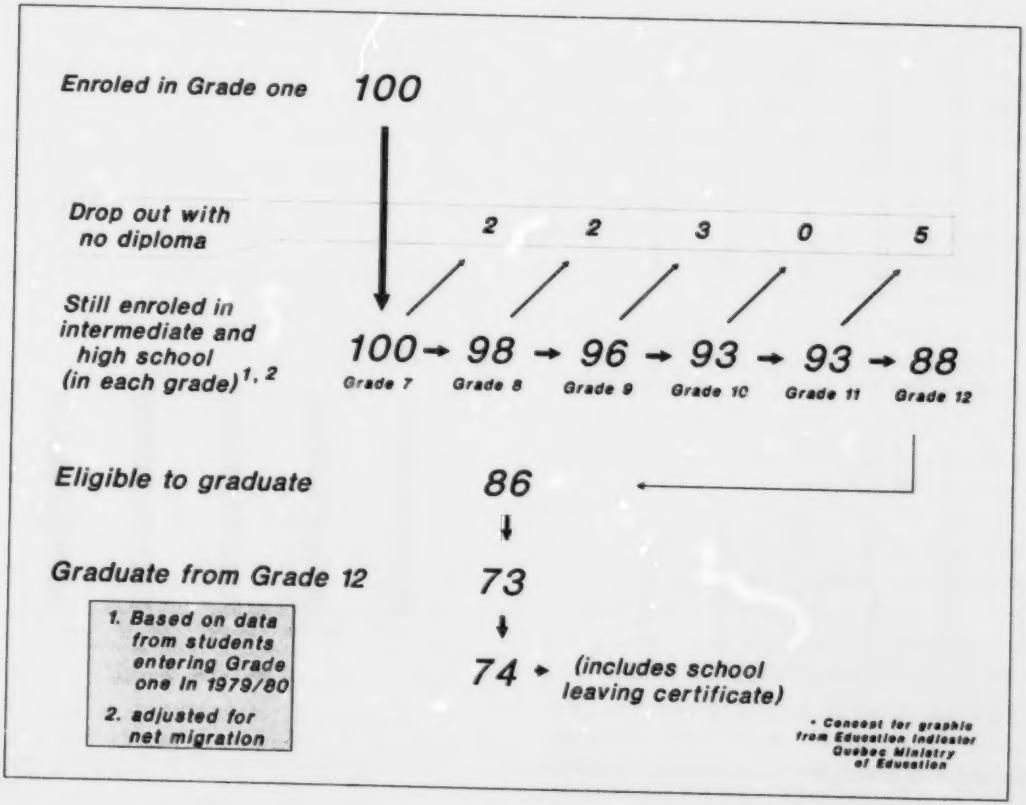


2.1 What happens to 100 students entering Grade one?



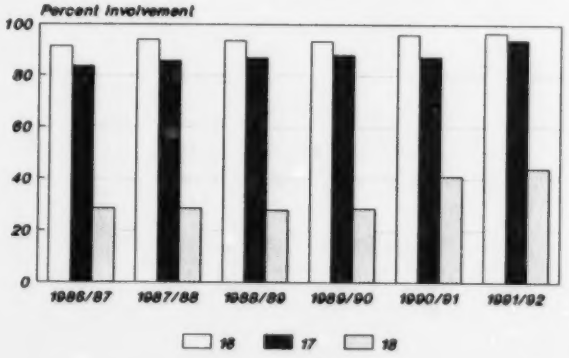
2.2 What percentage of students, 16 years and over, are still in school?

Since 1987/88 students have been required by law in this Province to remain in school until they are 16. Student participation beyond this mandatory minimum age is therefore an indicator of the holding power of the education system. Such participation can be expressed as the percentage of the total provincial population of the corresponding age cohort as determined by Statistics Canada.

The percentage of our 16 year olds in school has gradually increased from 91.3% in 1986/87 to 96.5% this year. Over the same period a similar increase is found for the 17 year old age group with a pronounced jump for the present school year.

About a third of the 18 year olds in the province have already graduated from high school as 17 year olds. Of those who have not yet graduated, participation in school has remained fairly steady between 1986/87 to 1989/90 at about 30%. In the past two years however, participation of this age group has risen quite dramatically to about 40%, which suggests that efforts in the area of school retention are beginning to show positive results. As in previous years, participation of students beyond the compulsory school age compares very favourably with that of other provinces that have a K-12 system.

Percentage of Each Age Cohort in School 16-18

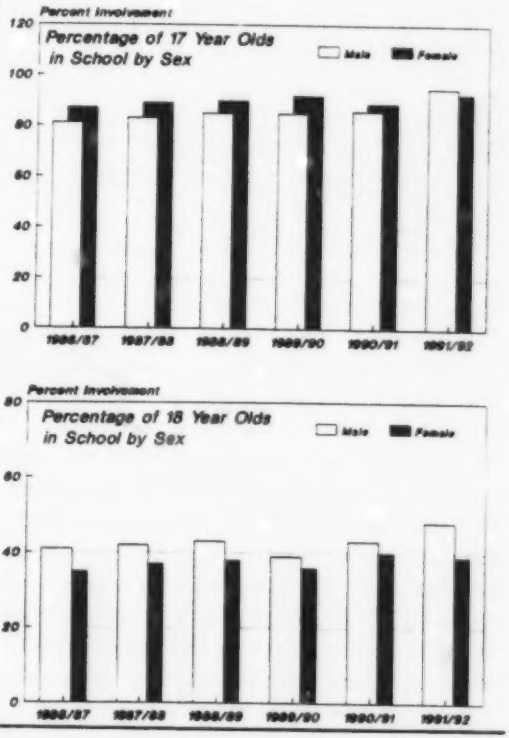


▲ *Figure 2.2.1 Percentage of each cohort in school.*

2.3 Do both sexes participate equally?

Up to the compulsory school age of 16, participation rates of males and females are similar, although more males than females enrol in kindergarten. Beyond 16, however, this situation changes. For each year between 1986/87 and 1989/90, participation of 17 year old females was 5% higher than that of males. In the current year, however, the situation for this group is reversed, with a slightly higher percentage of males. This is an interesting reversal and the situation should be monitored closely over the next few years since many of the Stay in School initiatives target this age group.

For 18 year olds, the difference between male and female participation is more pronounced, the largest difference being found in the past year. Students entering school as 18 year olds tend to be those who stay in high school for a fourth year or who have repeated a year earlier in their school career. This indicator suggests a trend that is disturbing for boys, one that should be monitored and addressed throughout the K-12 program.



▲ *Figure 2.3.1 (Top) Proportion of 17 year olds in school by sex.*

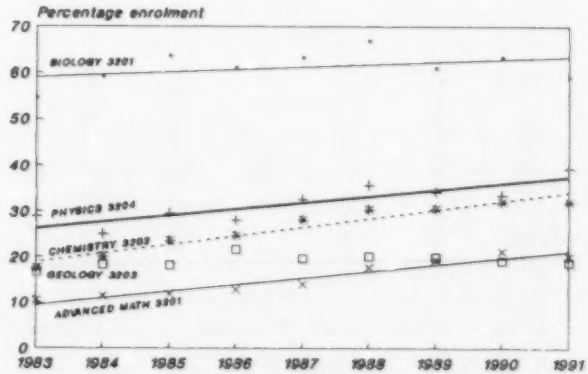
▲ *Figure 2.3.2 (Bottom) Proportion of 18 year olds in school by sex.*

2.4 To what extent are our students participating and succeeding in mathematics and science?

With the publication of the report of the Task Force on Mathematics and Science Education in 1989 considerable concern has been raised over the participation of students in advanced mathematics and science.

Providing a measure of participation in the area of science courses can pose certain difficulties. Students may complete 2000-level courses in any year of their three year high school program. Thus, obtaining a measure of participation in science courses at the 2000-level would call for a number of assumptions that may influence the validity and reliability of the data. Participation in 3000-level science courses can be calculated however, with relatively few assumptions, providing data estimates which are believed to be considerably more accurate. Since virtually all students complete 3000-level science courses in their second (Grade 11) or third (Grade 12) year of high school, the average of the enrolments in these two grades serves as a suitable denominator for calculating participation rates in any given year. As a result, we have chosen to focus on the participation of students in 3000-level science courses as an indicator of the output of the education system in these subject areas. Participation rate has therefore been defined as the number of students in the respective science course as

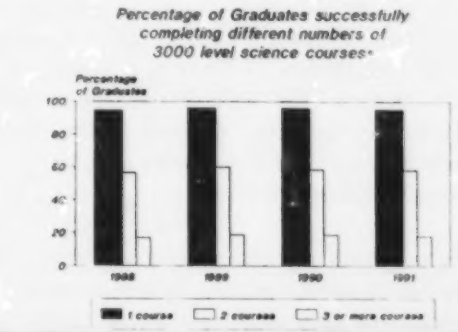
Percentage participation in 3000 level advanced math and sciences, 1983-1991



▲ *Figure 2.4.1: Percentage participation in 3000 level advanced mathematics and science courses, 1983-1991.*

a percentage of the average of Grade 11 and Grade 12 enrolment. The data clearly show that participation rates for all the sciences have been increasing at a steady rate since the courses were first offered in the 1983/84 school year. The most pronounced increases were in Chemistry 3202 (from 17.4% to 32%) and Physics 3204 (from 28.9% to 39.4%).

The enrolment of students in Advanced Mathematics 3201 remains an issue for educators in both the secondary and postsecondary sectors. Research indicates that students have much greater success in university and college level mathematics courses when they have completed the advanced mathematics program. The data presented in Figure 2.4.1 show that participation rate for this course has doubled since it was introduced in 1983/84. Clearly, schools and school districts are encouraging more students to complete advanced math courses. In addition, they are developing courses in calculus and calculus readiness. Although currently the number of students enroled in these courses is relatively small, it is likely that the enrolment trends will be similar to Advanced Mathematics 3201. A further useful output indicator is the percentage of students who graduate with varying numbers of 3000-level science courses. Ninety-five percent of our graduates in any given year obtain at least four science credits (graduation requirements have now changed so that this will be compulsory in the 1992/93 school year) while 58% obtain more than four 3000-level science credits. Presumably, these students have also completed the corresponding prerequisite 2000-level courses, to give them a minimum of eight science credits in total.



▲ *Figure 2.4.2: Percentage of graduates completing varying numbers of 3000-level science courses, 1988-91.*

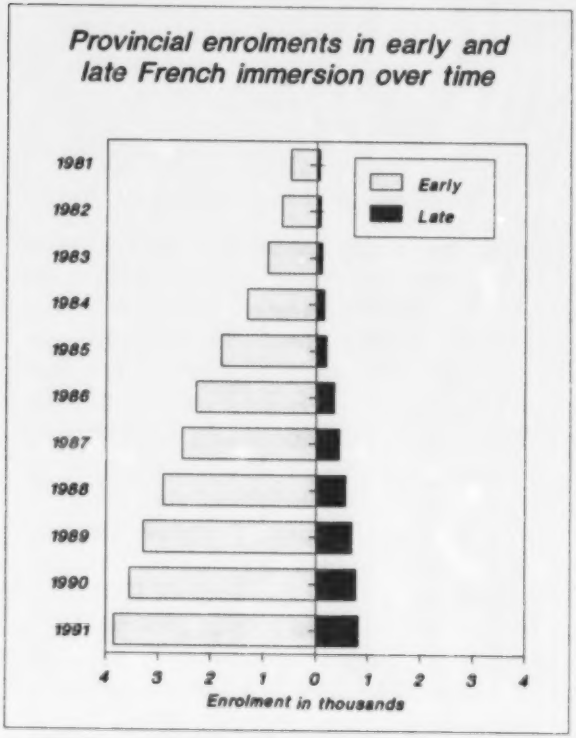
2.5 How many students are involved in French immersion?

French immersion is a program designed for English-speaking students in the French language. The main goal of the French immersion program is to provide students with an educational program, consistent with the aims and objectives of education in Newfoundland and Labrador, that will enable them to function in French upon completion of high school.

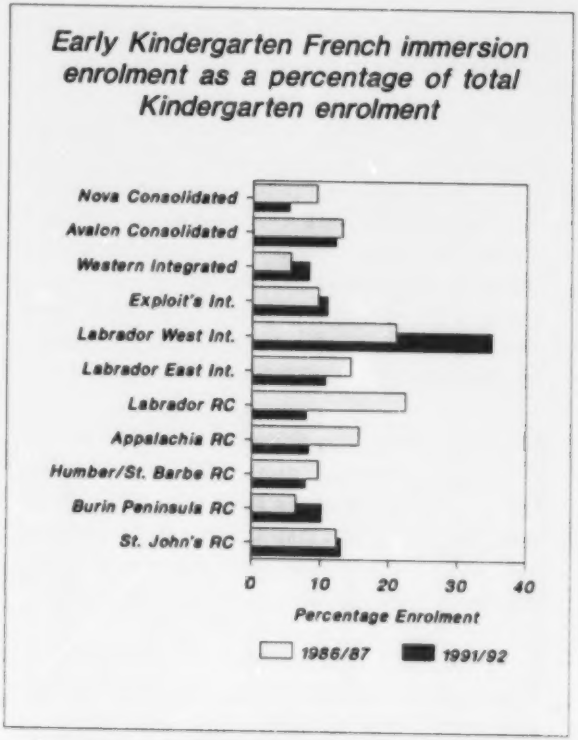
The number of school districts offering early French immersion programs has been steadily increasing since 1976, when the first kindergarten classes (totalling 56 students) received instruction in French. Today, 11 school districts offer early French immersion programs while six districts offer late immersion, with total enrolments of 3,832 and 804 respectively.

The late French immersion program begins at Grade 7 with approximately 75% of instruction in French for Grades 7 and 8 and 30% for Grade 9. Figure 2.5.1 shows the growth in French immersion enrolment over the past ten years. While most schools in the Province have undergone a period of significant enrolment decline, French immersion programs have enjoyed enrolment growth. This continued growth, however, is deceiving and is, in part, due to the initial boom of immersion students moving through the system.

Recently, the demand for French immersion programs in some school districts appears to have reached a plateau and is declining. When comparing the enrolment of kindergarten French immersion students as a percentage of the total kindergarten enrolment in 1991-92 with that of 1986-87, only three school districts show significant increases. Overall, enrolment continues to grow, but,as shown in Figure 2.5.2, in many districts we see a decrease.



▲ *Figure 2.5.1: Provincial enrolments in early and late French immersion programs over time*



▲ *Figure 2.5.2: Number of kindergarten early French immersion students (EFI) as a percentage of the total number of kindergarten students by district.*

2.6 To what extent has access to Advanced Mathematics in rural schools improved?

Prior to 1988, only 16% of students in rural schools had access to Advanced Mathematics 1201. Participation in Advanced Mathematics 2201 and 3201 were even lower at 13% and 8%, respectively. For a number of years, this situation has been identified as a major concern for students in these areas who were planning to proceed to postsecondary institutions.

The Department has addressed this problem in a number of ways, one of these being the introduction of Distance Education (DE). Using this technology, instruction and contact between teacher and students is through teleconference, telephone, and facsimile.

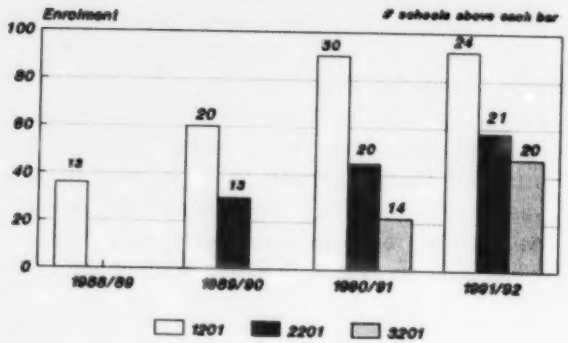
In 1988, 1201 was introduced to 13 schools. These same schools continued the program with 2201 the following year and 3201 in 1990. Due to the initial success of the program, and the recommendation of the Task Force on Mathematics and Science Education to expand access to Advanced Mathematics, the DE program now offers 1201 in 24 schools, 2201 in 21 schools and 3201 in 20 schools.

While the actual percentage of Advanced Mathematics students is small compared to the overall provincial population, the percentage of students in small rural schools who now participate in these courses has risen dramatically. As previously stated, in 1987/88, 16% of these students enroled in 1201, 13% in 2201 and 8% in 3201. Corresponding figures for the current school year are 31%, 28%, and 17%, respectively. Over the same time period, student participation in urban schools rose from 32% to 43% for 1201, 25% to 36% for 2201, and 19% to 25% for 3201. Despite the fact that percentage participation in rural schools is still lower than in urban areas, the gap is certainly decreasing.

An important characteristic of the Advanced Mathematics program in the past has been the relatively high attrition rates between 1201-

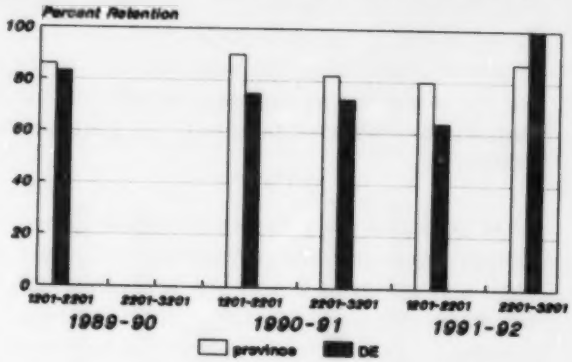
2201 and 2201-3201. In the first two years of the DE program, retention of students was similar to the provincial retention of about 80%. In subsequent years, however, retention between 1201-2201 through distance education has decreased relative to the regular face-to-face delivery. However, the difference in retention rates between the two delivery modes for 2201-3201 is not as great and in the current year addition of third level students give the impression that the attrition figure is zero when, in fact, this is not correct.

Enrolment in Advanced Mathematics Through Distance Education
1988/90 - 1991/92



▲ *Figure 2.6.1 Enrolment in Advanced Mathematics through DE, 1988/89-1991/92*

Retention Rates for Advanced Mathematics Distance Education and Regular Delivery



▲ *Figure 2.6.2 Retention Rates for Advanced Mathematics, DE and Regular Delivery 1989/90-1991/92*

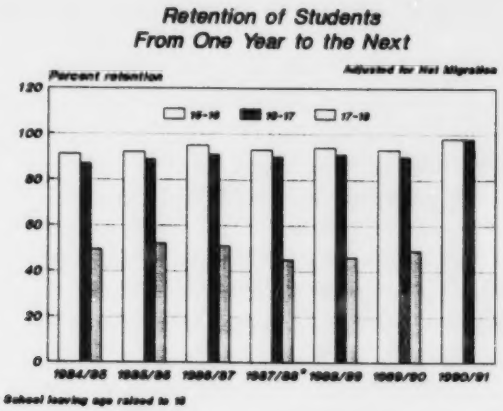
2.7 What percentage of our students return to school the following year?

The number of students beyond the compulsory school age that return to school the following year is a useful measure of school retention. To account for students who have entered or left the Province during the intervening year the figures are adjusted for net migration.

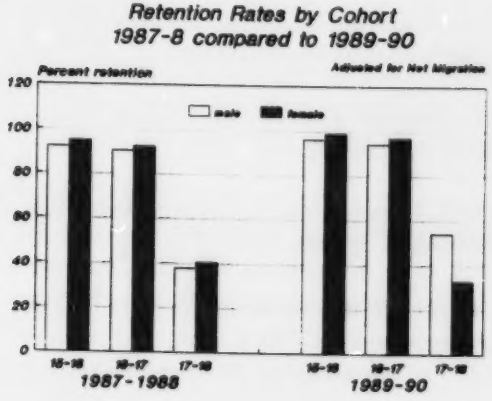
Since 1984/85, the percentage of 15 year olds who return to school as 16 year olds has been high, fluctuating between 91% and 98%. Over the same period the percentage of 16 year olds in school a year later has been slightly lower, but is showing an upward trend with a considerable increase between 1989/90 and 1990/91.

After adjusting for those students who have already graduated, the percentage of 17 year olds who return to school the following year has fluctuated since 1984/85. After reaching a high in 1985/86 the retention rate dropped noticeably over the next few years. However, the upward trend seems have resumed since that time.

Comparing retention figures by gender between 1987/88 and 1989/90 shows similar gender differences for the two years in favour of females for the two younger cohorts but quite a difference for the 17-18 year old retention rate. In 1987/88, a slightly higher retention rate was found for 17 year old females which indicates that more females were returning to school the following year. In the more recent comparison, there has been a substantial reversal showing a difference of approximately 20% in favour of males. This suggests that more males are being retained at the end of high school but they comprise a much larger proportion of the fourth level class (which includes students who have previously attended senior high school for at least three years) than females. This means that boys have either repeated a grade or have had a lower success rate with high school courses.



▸ *Figure 2.7.1 (top): Retention of students from one year to the next, 1984/85 - 1990/91.*



▸ *Figure 2.7.2 (bottom): Retention rates by cohort, 1987/88 - 1989/90*

3.1 CTBS: How do our students compare nationally?

The Canadian Tests of Basic Skills (CTBS) are standardized tests that measure student performance in a number of major academic areas. The administration of the test is alternated yearly for Grade 4, 6, and 8 students in all schools. A form of the test is also administered periodically to Grade 12 students from randomly selected schools across the Province. Student performance is compared to the results of a standardized sample of some 3,200 students from across the country. The main purposes of the program are as follows:

- To compare our students' achievement of basic skills with national averages.

- To compare achievement across school boards in the Province.

- To identify strengths and weaknesses in our instructional programs.

The CTBS are norm-referenced tests. Thus performance on the CTBS is expressed in terms of how well our students did in comparison to how well the Canadian norming sample did. Scores on the test are reported as percentile ranks. They refer to the percentage of students in the standardization sample who earned lower scores on the test. For example, a percentile rank of 45 indicates that 45 percent of the students in the standardization sample earned lower scores on the test. On any norm-referenced test the average percentile rank is 50, while students' performance between the 40th and 60th percentile is considered to be in the average range.

The CTBS are divided into a number of subtests. Grade 4, 6 and 8 students are tested on vocabulary, reading comprehension, language, work study skills and mathematics. Grade 12 students are tested on reading comprehension, written expression, using sources of information and mathematics. In addition, a composite score is provided for all grades; which indicates overall achievement in all subtests.

Overall Results

Tables 3.1.1 to 3.1.4 present composite and individual subtest results of students in Grades 4, 6, 8, and 12 over time. They illustrate somewhat inconsistent performance on the CTBS over the last 15 years. From 1974 to 1980, our students made significant, consistent improvements in virtually all subtest areas at all grade levels tested. This period was followed by an era of slight decline and levelling off in Grades 4 and 6. However, in Grade 8, the period from 1980-1986 shows that scores on all subtests regressed substantially to approximate those of the mid-seventies. This downward trend in achievement was not unique to this Province; it seems to have been a nation-wide phenomenon. However, Grade 8 performance in the most recent CTBS testing indicates a reversal of the downward trend; the overall results on the tests are at their second highest point in the history of the standardized testing program.

This past year, Grade 6 students were tested. Student performance was down in all subtests but the most significant decreases were in mathematics and vocabulary, where there was a drop of 7 percentile points from the previous testing in 1988 for both of these subtest areas. Student results in the other three subtests; reading comprehension, language, and work study, were within the average range of performance. Because of the low level of achievement in mathematics and vocabulary the overall composite percentile rank attained by our Grade 6 students dropped from 45 to 37. The Grade 6 performance in vocabulary is not surprising. Vocabulary and reading comprehension have historically been two areas of particular concern, showing low levels of student achievement. Achievement in mathematics, however, is disturbing since scores on the mathematics subtests have, in the past, been very close to the national norms.

Figures 3.1.1 and 3.1.2 contain examples of items from the Grade 6 CTBS showing the performance of students in this Province compared to the norming group.

Table 3.1.1
Grade 4 Percentile Ranks (1975-1990)

SUBTESTS	1975	1978	1981	1984	1987	1990
Vocabulary	31	38	41	30	36	33
Reading Comp.	36	40	48	38	41	39
Language	40	43	49	42	44	44
Work Study	41	45	50	39	43	43
Mathematics	45	45	45	47	47	42
COMPOSITE	38	42	46	38	42	43

Table 3.1.2
Grade 6 Percentile Ranks (1976-1988)

SUBTESTS	1976	1979	1982	1985	1988	1991
Vocabulary	31	37	31	43	42	35
Reading Comp.	33	44	42	46	46	43
Language	39	47	46	44	43	41
Work Study	38	43	41	42	43	42
Mathematics	42	45	43	44	43	36
COMPOSITE	36	45	41	46	45	37

Table 3.1.3
Grade 8 Percentile Ranks (1974-1989)

SUBTESTS	1974	1977	1980	1983	1986	1989
Vocabulary	23	30	48	38	28	33
Reading Comp.	26	34	42	28	33	41
Language	35	39	49	36	33	40
Work Study	27	35	47	34	28	40
Mathematics	31	37	48	38	34	40
COMPOSITE	27	35	48	34	31	40

Table 3.1.4
Grade 12 Percentile Ranks (1982-1990)

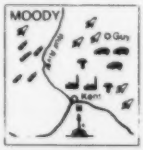
SUBTESTS	1982	1986	1990
Reading Comp.	24	37	45
Mathematics	35	38	44
Written Expression	28	45	47
Sources of Information	26	43	47
COMPOSITE	25	40	43

Figure 3.1.1: Some examples of Grade 6 performance on selected items from the 1991 CTBS:

Mathematics	Overall performance in mathematics was low in 1991
A. $37\overline{)407}$ ⟹	38% of our students answered this item correctly. 53% was the Canadian norm
B. 7/10 - 4/10 = ⟹	25% of our students could subtract these fractions compared with 47% nationally
C. 196 874 +422 ---- ⟹	31% of our students could add these numbers compared with 39% nationally
D. 267 351 = □ + 60 000 + 7 000 + 300 + 50 + 1 ⟹	69% of our students correctly answered this item compared with 58% nationally. In general our students performed above the national average on items testing "Number Systems"

Figure 3.1.2: Further examples of Grade 6 CTBS performance

Using Visual Materials



E. Which other product is most often found with hogs? ⟹ 66% of students could answer this question as compared to 51% in the norming group

Word Usage and Expression

F. Which line has an error?

1. Dan saw the sheeps running along
2. the highway. They were so fearless
3. he had to drive slowly to avoid them
4. (No Mistakes)

⟹ This item was answered answered correctly by 42% of our students compared to 37% nationally

Vocabulary (word meanings)

G. Edible plants
1. toxic 3. healthful
2. eatable 4. nutritious

H. Convert to gas
1. add 3. change
2. resort 4. return

⟹ Performance on the "Vocabulary" items was also low. On these two items 48% and 45% of students respectively answered correctly. This compares with 60% and 64% in the national sample.

Over the history of CTBS testing, there have been improvements in composite results for Grades 4, 8, and 12, bringing performance into the average range for these students. Figure 3.1.3 illustrates the achievement of students at all four grade levels over time. The following is a comparison of composite percentile rank for the first CTBS testing with that of the most recent CTBS testing:

GRADE 4(1975) ----------▸ *GRADE 4(1990)*
PR = 38 *PR = 43*

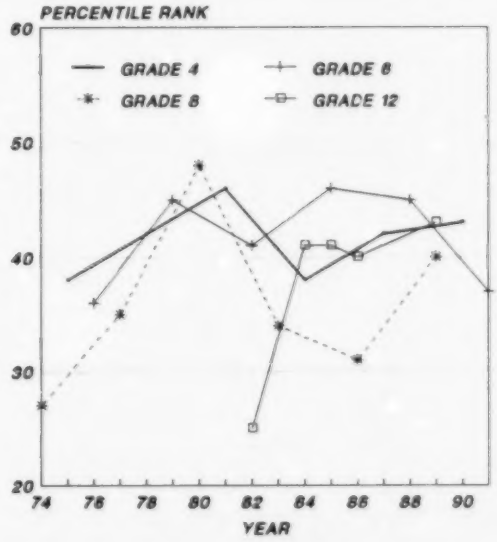
GRADE 6(1976) ----------▸ *GRADE 6(1988)*
PR = 36 *PR = 37*

GRADE 8(1974) ----------▸ *GRADE 8(1989)*
PR = 27 *PR = 40*

GRADE 11[1](1982) ----------▸ *GRADE 12(1989)*
PR = 25 *PR = 43*

1 graduating year prior to introduction of reorganized high school program

Canadian Tests of Basic Skills
Composite National Percentile Ranks
(by grade - 1975-89)



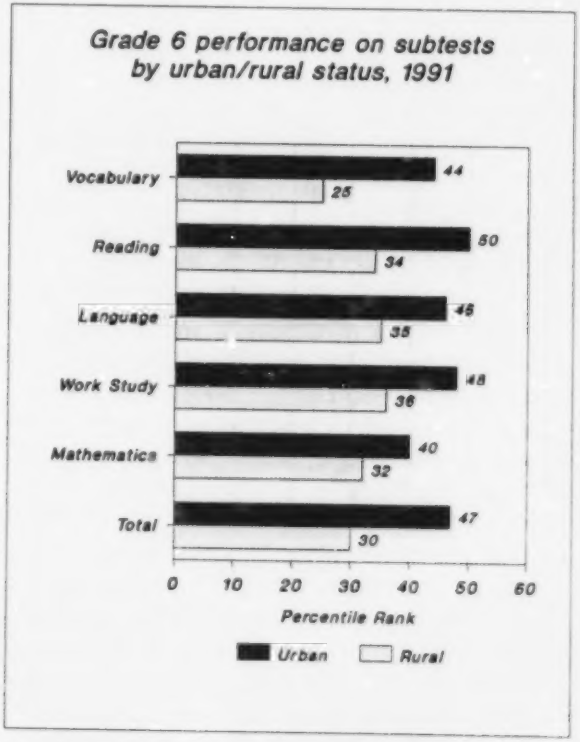
▸ *Figure 3.1.3: CTBS composite percentile rank by grade over time.*

Urban/Rural Differences

There are some striking differences between the performance of urban[1] and rural students on the CTBS. With few exceptions, at all Grade levels scores are higher in urban schools. At the Grade 6 level, this year urban students outperformed rural students in all subtests (Figure 3.1.4). There is extreme disparity in achievement on the vocabulary and reading comprehension subtests. On the vocabulary subtest urban students scored at the 44th percentile while rural students achieved at the 25th, a spread of 19 percentile points. Similarly, the reading comprehension test scores were 50 and 34, respectively. There was a spread of 17 percentile points on the overall composite scores; 47 and 30, respectively.

Similar differences exist at other grade levels. For example, Grade 8 students were last tested in 1989. Urban students achieved at the 46th percentile; rural students at the 31st. In the 1990 Grade 4 testing, the percentile ranks were 47 and 35, respectively.

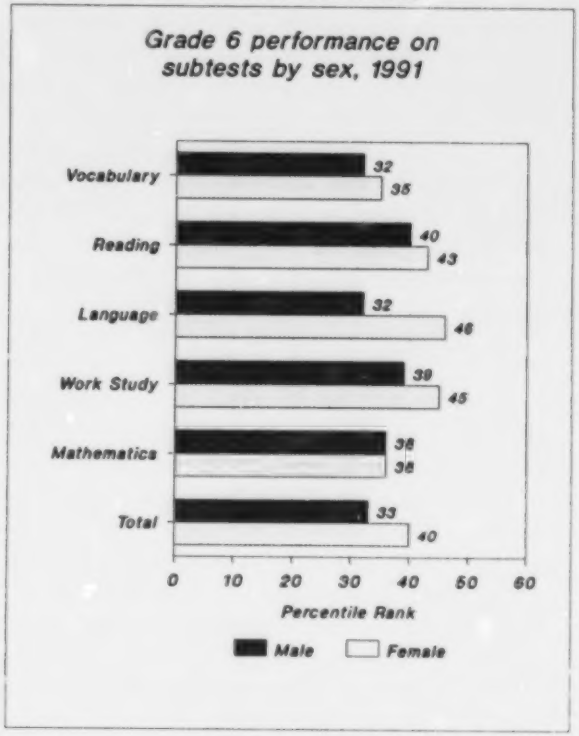
1 census metropolitan areas, census agglomerations and other communities with populations of 5,000 and over



▲ *Figure 3.1.4: 1991 Grade 6 performance by subtest and urban/rural status.*

Gender Differences in Achievement

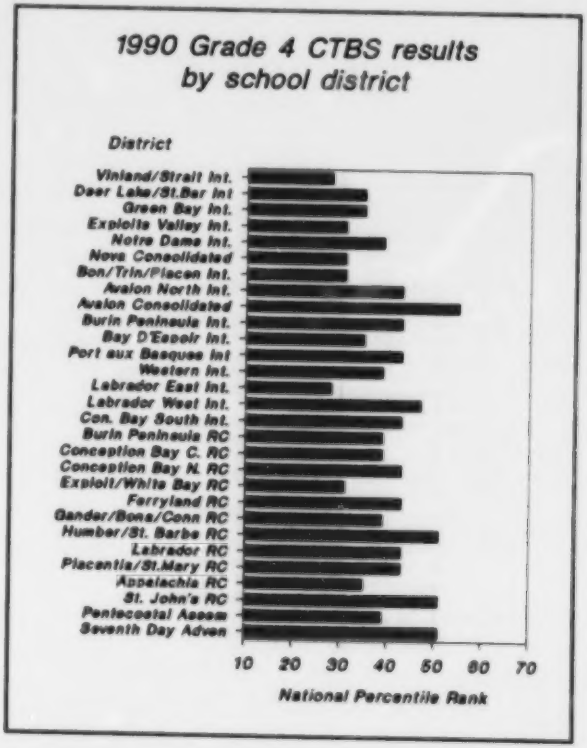
Figure 3.1.5 shows the differences in achievement between boys and girls for the most recent CTBS testing (Grade 6). The graph illustrates that girls score higher on all subtests except mathematics, where the scores are equal. The most profound difference in achievement is on the language subtest. Girls scored at the 46th percentile compared to the 32nd for boys. Again, these differences are not restricted to this grade level. The most recent testing of Grades 4 and 8 students showed that girls consistently outperformed boys on all subtests with the exception of the vocabulary subtest in Grade 8, where the scores were equal. In the most recent Grade 12 testing, however, girls scored higher on only the written expression subtest. Although the final composite score for boys and girls was equal in the 1990 CTBS, boys scored significantly higher in the mathematics subtest (yet girls still outperform boys in 3000 level advanced and academic mathematics) and marginally higher in the using sources of information subtest. These differences in mathematics achievement between boys and girls have been the subject of a 1989 Department of Education report entitled *Sex-related Differences in Mathematics.*



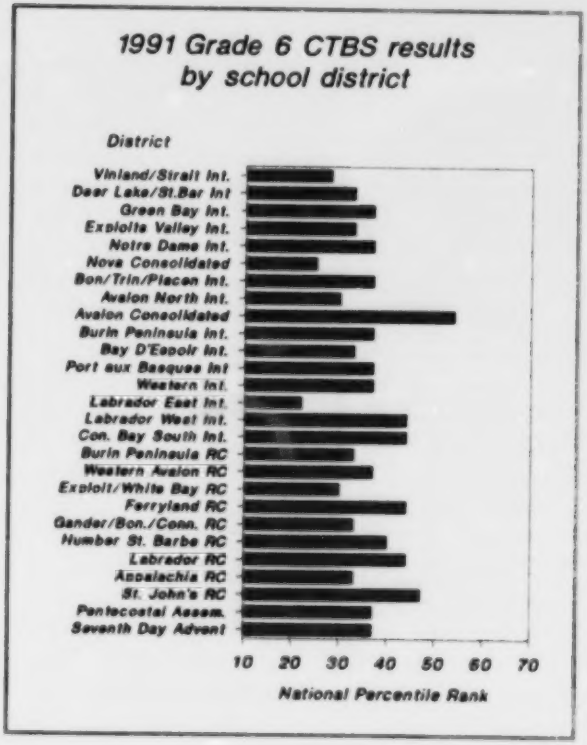
▲ *Figure 3.1.5: 1991 Grade 6 CTBS composite percentile ranks by subtest and gender*

Achievement by School District

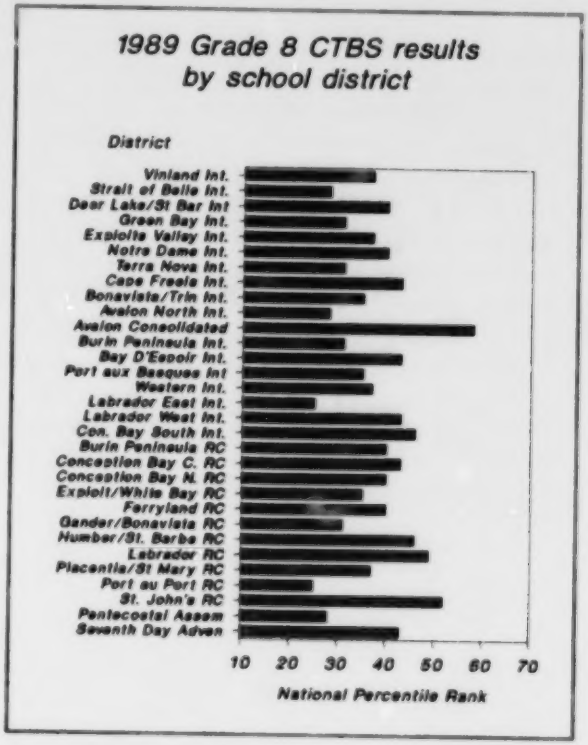
Results from the Standards Testing Program are reported yearly by school district. This type of information is important for two reasons: first, from a public accountability perspective, this type of information lets the community know how well our schools measure up to national standards; and second, to provide school districts with a benchmark against which to evaluate themselves. The CTBS composite percentile rank for Grades 4, 6 and 8 by school district for the most recent testing are presented in Figures 3.1.6 - 3.1.8. Grade 12 data are not included because the Grade 12 random sample is not stratified by school district.



▲ *Figure 3.1.6: 1990 Grade 4 CTBS composite results by school district.*



▲ *Figure 3.1.7: 1991 Grade 6 CTBS composite results by school district.*



▲ *Figure 3.1.8 : 1989 Grade 8 CTBS composite results by school district.*

3.2 How do our students perform internationally in mathematics, science and geography?

In 1991, 3,300 13 year old students in 110 schools in the Province participated in the **Second International Assessment of Educational Progress (IAEP)** sponsored by the Educational Testing Service in the United States (U.S.). In this study, 20 countries assessed the performance of this age group in mathematics and science, with an accompanying geography probe. Participating jurisdictions all shared a common interest in identifying what children at this stage in their education know and can do in these curriculum areas in order to improve programming.

The tests focused on elements common to the curricula of the participating countries. Data were also collected on the home background of students together with a number of characteristics of their schools and classrooms.

Items on the mathematics test were designed to evaluate five content areas typically taught at this level: **numbers and operations; measurement; geometry; data analysis, statistics and probability; and algebra and functions.** An analysis of items by the Department showed that few items were out of the scope of the mathematics program for grade 8 students, the modal grade for the study.

Items on the science test assessed four topic areas: **life sciences; physical sciences; earth and space sciences; and the nature of science.** Three further categories included the cognitive processes of **knowing, using, and integrating.** As with the mathematics test, few items were considered beyond the scope of the Grade 8 program.

Internationally, the average percent correct scores in mathematics range from a high of 80% in China (only sampled from its in-school population) to a low of 28% correct in Mozambique. Canada, with 62% falls slightly above the IAEP average of 58% but is not significantly different from students in France, Italy, Israel, England, Scotland, and Ireland.

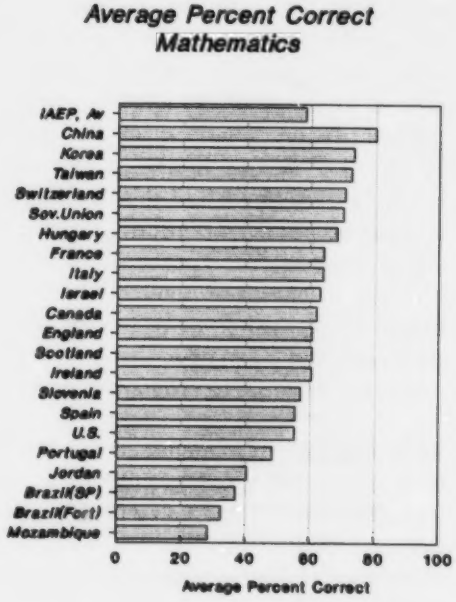
However, it is significantly higher than the U.S. with whom we are often compared.

In science, Canada attained a score of 69%, again just above the IAEP average of 67%. In this case the scores ranged from a high of 78% in Korea to a low of 46% for the in-school population in Fortalesa (Brazil).

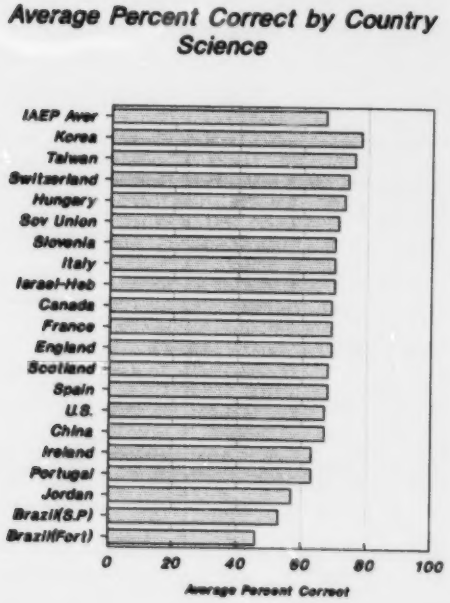
Interprovincially, with a score of 59%, Newfoundland ranked sixth in mathematics above Manitoba, New Brunswick (Eng.), Ontario (Eng./Fr) and also above the U.S.. Worthy of note is the fact that this Province was the only population where females outscored males in mathematics. As for other provinces, student performance in this Province was highest in the data analysis, statistics and probability subtest. With the exception of Alberta, all provinces performed poorest on the measurement subtest.

Percent Correct and Curricular Emphasis

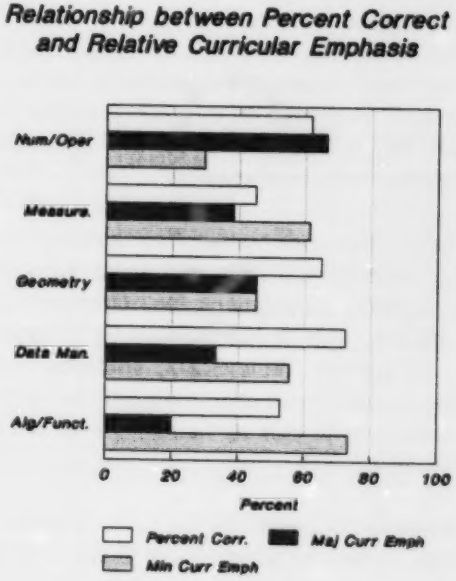
Analyzing the relationships between the percent correct on each subtest of the mathematics test and the relative curricular emphasis, as rated by the schools, reveals that



▲ *Figure 3.2.1 Average percent correct by country, mathematics.*



▲ *Figure 3.2.2 Average percent correct by country, science.*



▲ *Figure 3.2.3 Relationship between percent correct and relative curricular emphasis.*

the latter is relatively minor for the two subtests **measurement** and **algebra and functions** on which the students performed least well. The anomaly is the relatively high achievement in **data analysis**, an area that received the least emphasis in the mathematics curriculum. A possible explanation is that the concepts evaluated in this subtest may have been taught elsewhere in the curriculum, particularly in social studies.

In terms of science overall, Newfoundand, with an average score of 66% performed better than the French populations in Ontario, New Brunswick, and Saskatchewan. However as can be seen in Table 3.2.2, students in this province performed only marginally lower than English Ontario and at the same level as New Brunswick.

Examining the results for the seven subtests, a similar pattern of responses is found all across the country. On the content subtests, Newfoundland students as a group, along with those in all other provinces, performed best in the area of **nature of science** and lowest on the items related to the **physical sciences**.

For the subtests that focused on the cognitive processes, students across the country had fewer problems with the **knowledge** items than with those designed to assess the **use of knowledge** and the **integration** of material.

Table 3.2.1
Percent Correct by Province and Subtest: Mathematics

Mathematics	Overall Average Percent Correct	Average Male/ Female Percent	Num & Oper.	Meas.	Geo-metry	Data Anal./ Func.	Algebra./ Func.	Concept Underst.	Proced. Know	Problem Solving
Rank Order/IAEP Average	58		61	47	62	69	54	61	58	56
Canada	62	63/61	66	50	68	76	53	65	62	59
British Columbia	66	67/65	69	54	70	80	60	69	68	62
Alberta	64	64/63	69	54	67	80	52	68	63	61
Manitoba French	63	64/62	67	49	67	75	59	65	66	58
Manitoba English	58	58/58	63	46	58	74	51	61	59	54
New Brunswick French	61	60/61	65	47	65	72	54	64	63	55
New Brunswick English	58	58/57	62	51	62	71	43	61	55	56
Nova Scotia	60	61/59	63	47	64	74	54	62	60	57
Newfoundland	59	58/60	62	46	66	72	53	62	60	54
Ontario English	58	59/57	62	46	63	74	50	61	59	56
Saskatchewan English	62	63/61	66	50	63	78	55	64	64	57
Saskatchewan French	68	69/66	74	54	69	76	62	70	69	63
Ontario French	53	54/54	58	39	59	69	45	57	54	50
United States	55	56/55	61	40	54	72	49	57	56	52

Table 3.2.2
Percent Correct by Province and Subtest: Science

Science	Overall Average Percent Correct	Average Male/ Female Percent	Life Sciences	Physical Science	Earth/ Space Science	Nature of Science	Knows	Uses	Integrates
Rank Order/IAEP Average	67		68	64	67	71	73	66	65
Canada	69	71/67	69	65	68	79	72	66	71
Alberta	74	76/72	72	71	74	84	76	72	76
British Columbia	72	74/71	70	71	72	81	76	70	74
Quebec English	71	73/70	73	67	70	80	74	69	74
Quebec French	69	71/67	69	65	68	81	73	66	71
Saskatchewan English	70	72/68	71	65	72	80	74	68	70
Saskatchewan French	65	66/63	64	60	68	74	68	62	67
Nova Scotia English	69	70/67	68	66	69	76	72	68	66
Manitoba English	69	70/67	68	65	71	77	73	67	68
Manitoba French	67	70/64	65	64	67	73	70	64	68
Ontario English	67	69/66	66	63	66	78	70	64	69
Ontario French	60	62/59	61	56	61	68	62	59	61
United States	67	69/65	69	62	67	76	73	65	65
New Brunswick English	66	68/65	66	63	66	75	70	65	67
New Brunswick French	64	64/63	62	62	65	69	64	63	64
Newfoundland	68	69/64	65	62	69	75	70	64	66

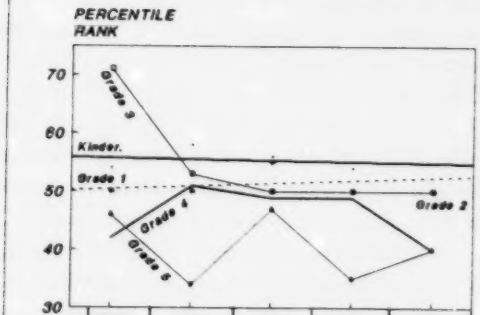
3.3 How have our French immersion students progressed?

French immersion programs in Newfoundland and Labrador have been evaluated on a regular basis since the first immersion program was established in 1975. French language achievement is measured using the French Comprehension Test (FCT), the French Diagnostic Reading Test (Tests diagnostique de Lecture - TDL) and the Reading Comprehension Test (Test de comprehension en lecture - TCL). The FCT is designed to measure the French comprehension skills of children completing the kindergarten year of a complete French immersion program. The TDL and TCL are primarily diagnostic testing instruments. The TDL is administered to students in grades 1,2 and 3; students in grades 4-6 are tested using the TCL. All of these tests provide a means whereby the academic performance of French immersion students can be assessed and comparisons made with other French immersion students in the province and with the norming group.

Provincial results from the French immersion testing program for Grades K to 5 are presented in Figure 3.3.1 (although Grade 6 results are available, enrolment is low and regionalized; results are, therfore, not presented). The lines on the graph for the Kindergarten, Grade 1 and Grade 3 levels represent trends in performance over time. It can be seen that performance has remained relatively constant at these grade levels over the last five years. In Grade 3, however, there was a substantial drop from 1987 to 1988 with performance stabilizing at about the 50th percentile. Results for Grades 4 and 5 have been lower and somewhat erratic over time. This is especially true for Grade 5 students.

Grade 3 performance in the most recent French immersion testing has been selected to illustrate variations in performance by school district. The Grade 3 student population is a relatively large and stable from year to year. Performance of school districts on the TDLSTC at this level is presented in Figure 3.3.2.

Provincial performance of Kindergarten to Grade 5 French immersion students on standardized tests, 1987-1991

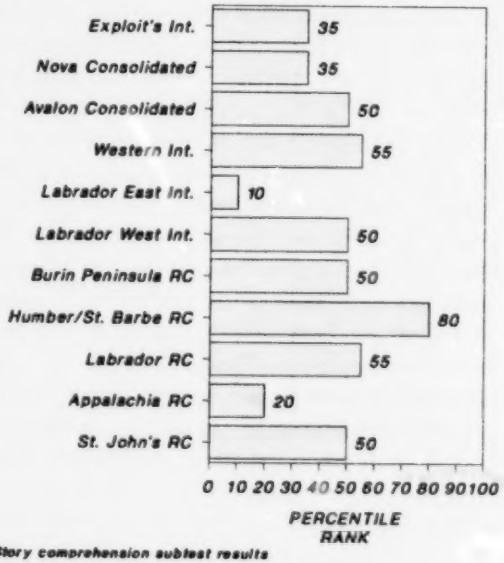


	1987	1988	1989	1990	1991
Kinder.	54	58	58	54	
Grade 1	50	50	55	50	
Grade 2	50	50	50	50	50
Grade 3	71	53	50	50	50
Grade 4	42	51	49	49	40
Grade 5	46	34	47	35	40

• Kindergarten- FCT, Grade 1- FCT, Grade 2- TDLSSC, Grade 3- TDLSTC, Grade 4- TCL, Grade 5- TCL

▲ *Figure 3.3.1: Provincial percentile ranks from French language comprehension tests for K-5 students, 1987-91. (FCTT - French Comprehension Test Total; TDLSSC - Test Diagnostique de Lecture: Sentence and Story Comprehension Subtest; TDLSTC - Test Diagnostique de Lecture: Story Comprehension Subtest; TCL - Test de Comprehension en Lecture)*

Grade 3 TDL• performance by school district, 1991



•Story comprehension subtest results

▲ *Figure 3.3.2: 1991 Grade 3 performance on the TDLSTC by school district.*

3.4 How do our senior students perform on public examinations?

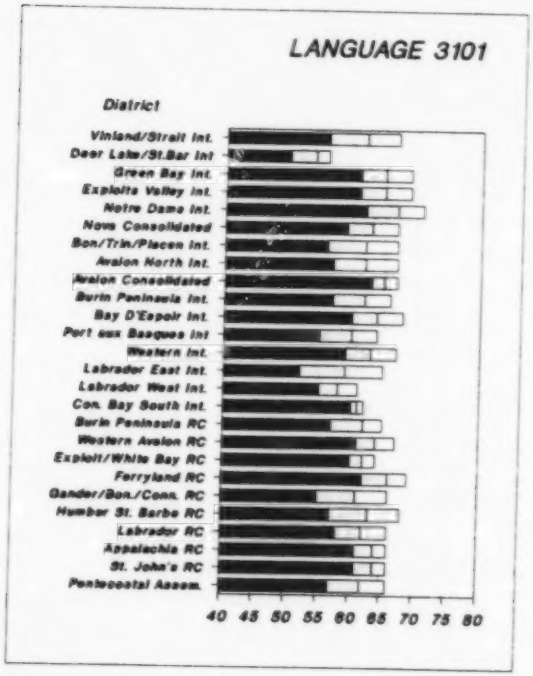
A public examination is a year-end examination in certain third level high school courses set and administered by the Department of Education. Historically, the system of public examinations has existed in this Province for a number of 3000-level courses. While the majority of provinces abandoned the idea of public examinations some years ago, the Department continued to use these instruments as a means of certifying that our graduating students met certain established performance standards. It is noteworthy that Ministries of Education in a number of other provinces have, in recent years, returned to a system of public examinations in some form.

The grades received on the public examinations are used on a 50/50 basis, with the school evaluation, in the determination of the final results. Examinations are written in June and graded by a panel of subject area teachers. In 1988, public examinations were written in 33 courses. This number has since been reduced to 18.

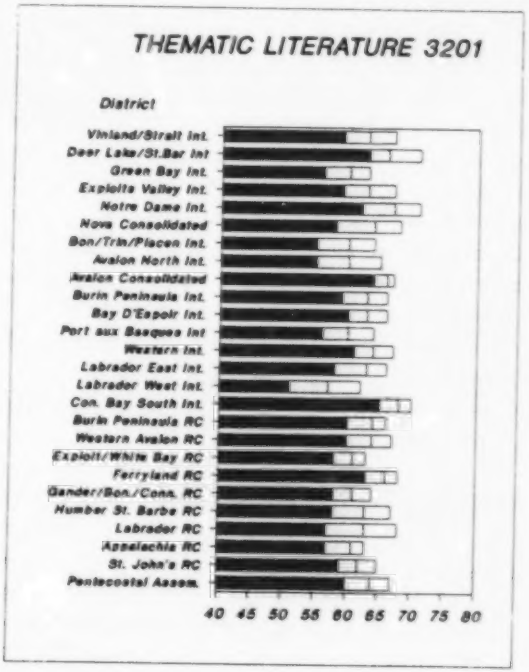
Figures 3.4.1 to 3.4.10 illustrate student achievement in selected courses by school district for the 1990-91 school year (blank spaces indicate the course was not offered in 1990). The stacked graph represents average student performance in the public examination (black), the combined school evaluation and public examination (shaded), and the school evaluation only (white). In instances where there is no shaded or white section on the bar the public examination mark was greater than the mark awarded by the school.

The comparative information provided for Advanced Mathematics 3201 should be examined with caution since average performance in this subject will depend on district policy in placement of mathematics students. Strong arguments can be made for districts to maximize the proportion of students who enrol in this course since it has been demonstrated that high school students who have completed the advanced mathematics program have greater success in postsecondary

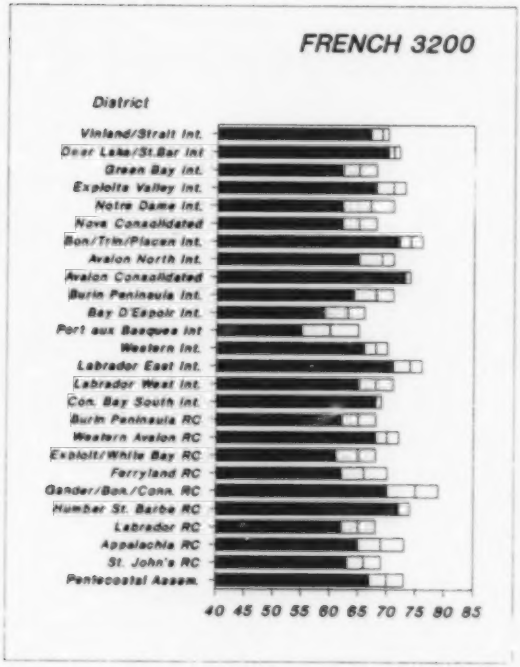
mathematics programs. Thus, in districts that enrol a large proportion of students in this course, average performance may be lower than in districts that enrol only the top students.



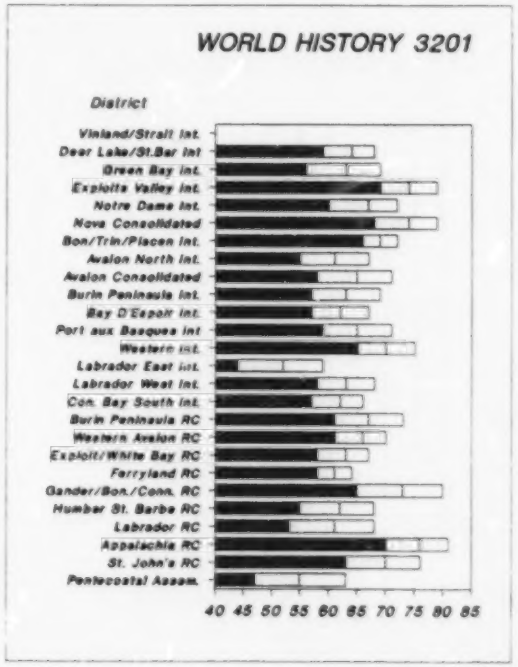
▲ *Figure 3.4.1: Public examination, combined, and school average mark for Language 3101 by school district, 1991.*



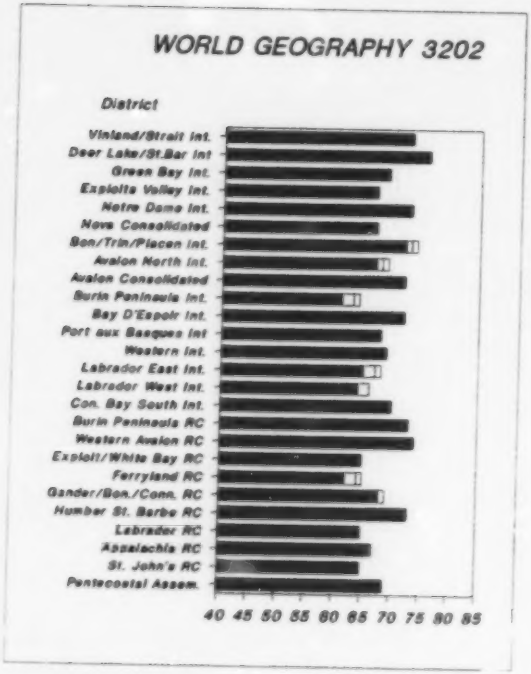
▲ *Figure 3.4.2: Public examination, combined, and school average mark for Them. Lit. 3201 by school district, 1991.*



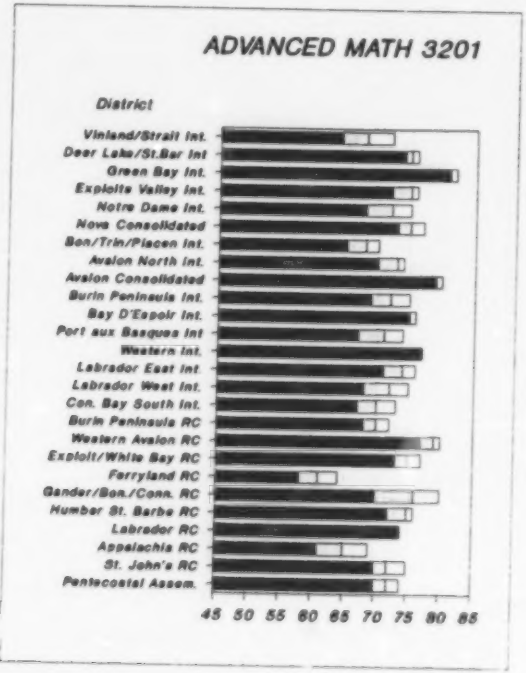
▲ *Figure 3.4.3: Public examination, combined, and school average mark for French 3200 by school district, 1991.*



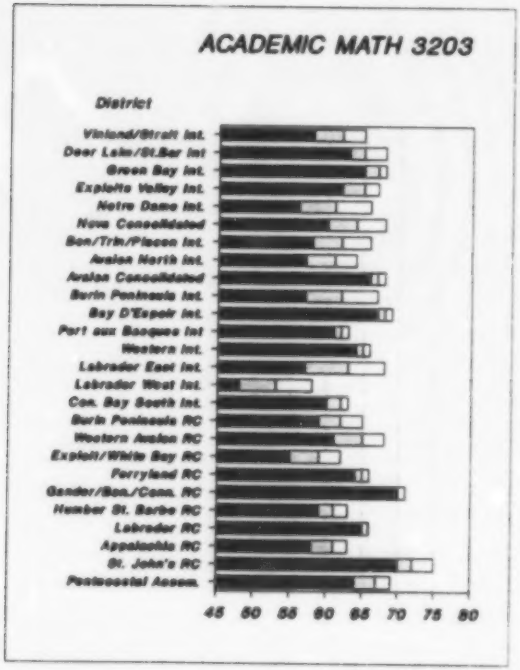
▲ *Figure 3.4.4: Public examination, combined and school average mark for Wor. Hist. 3201 by school district, 1991.*



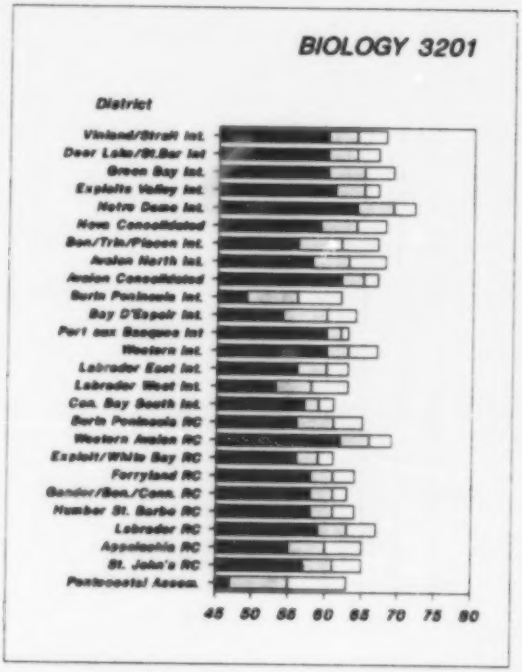
▲ *Figure 3.4.5: Public examination, combined, and school average mark for Wor.Geog. 3202 by school district, 1991.*



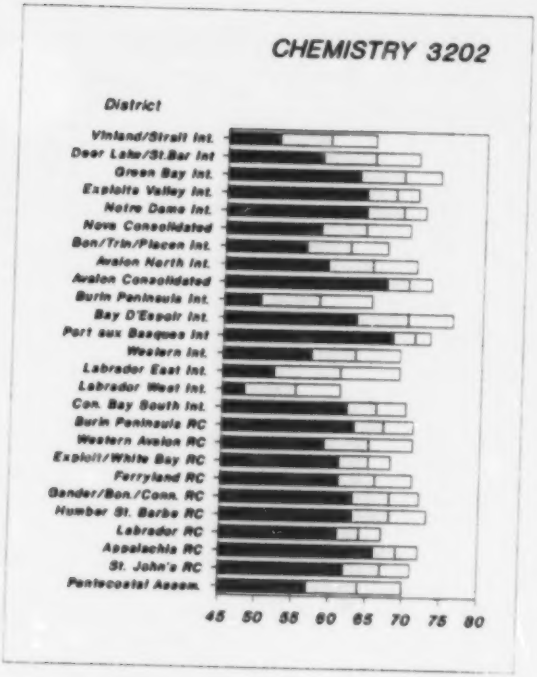
▲ *Figure 3.4.6: Public examination, combined, and school average mark for Adv. Math 3201 by school district, 1991.*



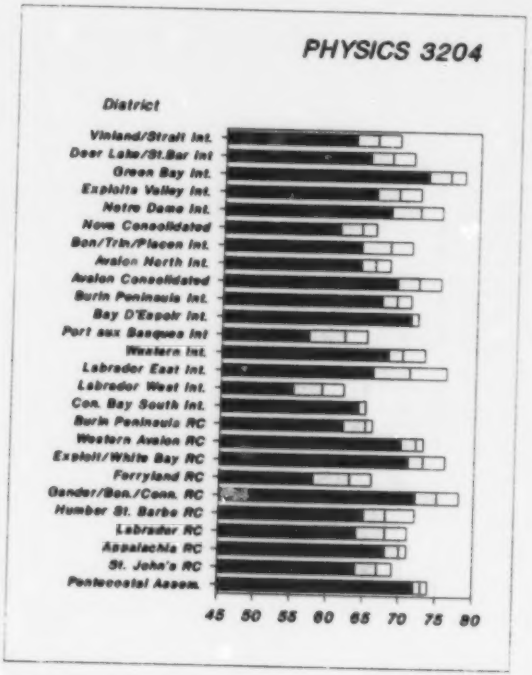
▲ *Figure 3.4.7: Public examination, combined and school average mark for Aca. Math 3203 by school district, 1991.*



▲ *Figure 3.4.8: Public examination, combined, and school average mark for Biology 3201 by school district, 1991.*



▲ *Figure 3.4.9: Public examination, combined, and school average mark for Chemistry 3202 by school district, 1991.*

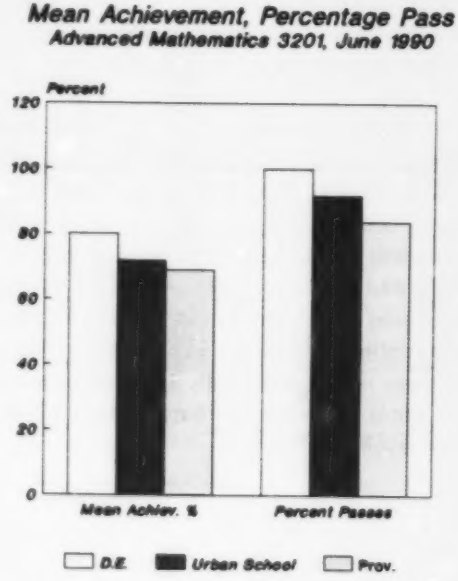


▲ *Figure 3.4.10: Public examination, combined, and school average mark for Physics 3204 by school district, 1991.*

3.5 How well are our students performing in Advanced Mathematics through Distance Education?

The first cohort of students to complete the three levels of Advanced Mathematics through Distance Education (DE) graduated in June 1990. Performance of these students in 3201 can be compared to those who received the program through regular face to face delivery in terms of the percentage of passes and the average shared evaluation mark attained.

For the DE students, the mean mark was higher than for both the urban class, taught face to face by the DE teacher, and the provincial average. A similar pattern could be found for the percentage of passes for the three groups, with the DE students outperforming the other two groups. While these results are only available for one cohort, it suggests that, given the opportunity, students in small remote schools can do as well academically in this subject area as students elsewhere in the province.



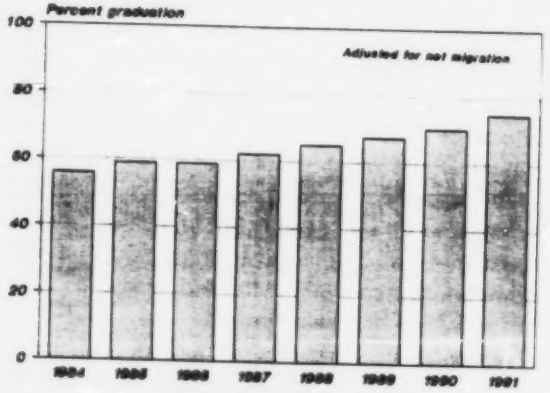
▲ *Figure 3.5.1 Mean Achievement and Percentage Passes in Advanced Mathematics 3201, June 1990*

3.6 How have graduation rates changed over recent years?

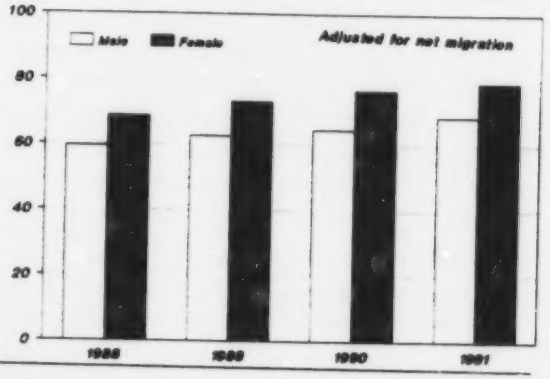
A common way of expressing graduation rates is as the percentage of students who were enroled in school in Grade 8, four years earlier. This indicator requires that the denominator be adjusted for net migration each year between Grade 8 and Grade 12.

From 1983/4 to the school year 1990/91, graduation rates have gradually increased from 58% to about 73% in the past school year (Figure 3.6.1). These rates can be examined by gender since 1987/88. Since this time, graduation rates for both males and females have risen steadily, with the rates being almost 10% higher for females than males. This gap has been widening slightly for each of the last four years. Comparable data prior to 1987/88 is not available.

Graduation Rates 1984 to 1991



Graduation Rates by Gender 1988 to 1991



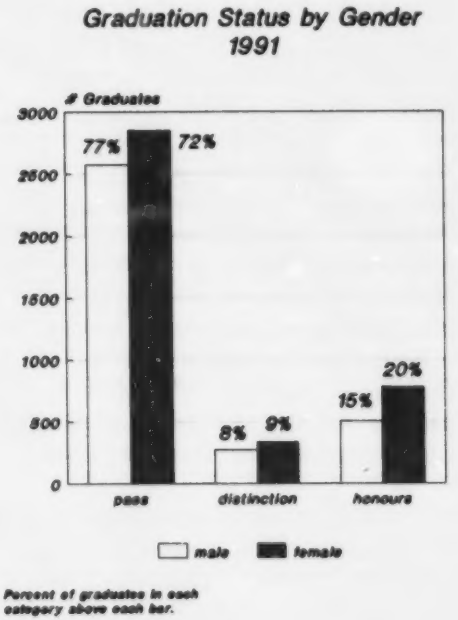
▸ *Figure 3.6.1 (Top) Graduation rates, 1984 to 1991*

▸ *Figure 3.6.2 (Bottom) Graduation rates by gender, 1987/88 to 1990/91*

3.7 How well do our graduates perform?

In this Province, students graduate from high school with either pass, honours, or distinction status. To obtain a distinction, a student must satisfy the graduation requirements and attain 550 marks or more in any seven level three courses. For honours, a student must satisfy the graduations requirements and attain 550 marks or more in seven level three honours courses. Although the total number of graduates has increased each year since 1988, the relative percentages for the three groups has stayed the same. Just over three quarters of the graduates receive a pass, 8% graduate with distinction, and 17% with honours.

The distribution of status by gender, however, shows some interesting differences. In 1991, five percent more males than females graduated with a pass. At the top achievement level, the situation is reversed with approximately five percent more females than males obtaining honours. At the distinction level, the percentages are very similar with a slight edge being found for females.



▲ *Figure 3.7.1 Graduation Status by Gender 1990.*

3.8 How do our best students perform nationally?

Since 1990, a small number of high schools in the Province have been enroling their top students in the Advanced Placement program sponsored by the College Board. This program consists of university level courses and examinations offered and administered to secondary school students. Advanced Placement courses make it possible for academically talented and/or highly motivated students to upgrade the quality and increase the challenge of their studies and also take the opportunity to "place out" of university courses that are a repetition of high school. This permits them direct entry to second year programs at the postsecondary level.

In 1990, 66 students in this Province wrote 68 examinations in four subject areas, English Literature, French Language, Music and Calculus (Table 3.8.1). Performance is graded on a five point scale, with level three being the minimum level for university credit.

Relative to other provinces, our Advanced Placement students have performed very well, with over 80% receiving a grade of three or more in 1990 (Table 3.8.2). When broken down by individual subject areas, results show that 94% of candidates received a grade of 3 or more in English Literature, 81% in French Language, 50% in Calculus and 100% in Music Theory.

Table 3.8.1: Number of candidates and distribution of Grades by Subject, 1990.

AP Grade	English Lit.	French Lang.	Calculus AB	Music Theory
5	5	10	2	
4	1	10		1
3	8	12		
2	1	4		
1		5	2	
Total Exams	6	47	4	1
Mean Grade	3.83	3.60	3.00	4.00

Table 3.8.2: National statistics on Advanced Placement

Advanced Placement in Canada				
Province	Total Exams	Total Candidates	Number of Schools	% Students Receiving Grade 3+
Alberta	296	223	22	76.7%
British Columbia	2851	2045	101	70.7
Manitoba	385	276	15	62.3
New Brunswick	15	13	1	33.3
Newfoundland	68	66	6	82.4
Nova Scotia	64	44	4	56.3
Ontario	254	203	20	81.5
Prince Edward Is.	10	10	1	50
Quebec	3	3	3	100
Saskatchewan	12	10	2	-
Total	3958	2893	175	70.6

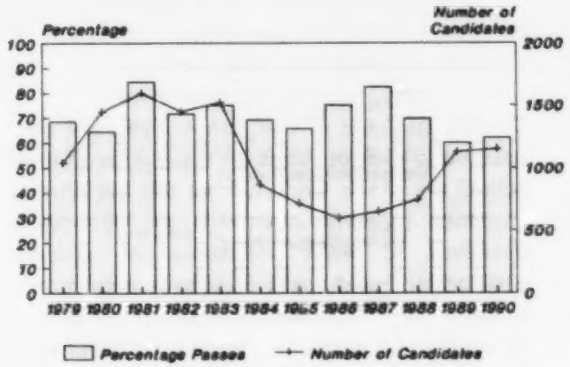
3.9 What alternatives are available to students who do not graduate from Grade 12?

For adults who did not complete high school, the Tests of General Educational Development (GED Tests) provide an opportunity to earn a high school credential. The GED program is sponsored by the American Council on Education and enables individuals to demonstrate that they have acquired a level of learning comparable to that of high school graduates. Recognized nationwide by employers and institutions of higher learning, the GED program has increased employment, education, and earning opportunities for more than ten million adults since 1942. Last year alone, in this country, more than 13,000 adults obtained high school equivalency certificates.

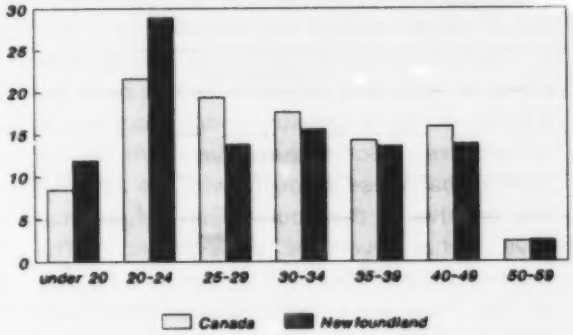
In this Province, we have been administering the GED at a number of Provincial testing sites since 1979. Figures 3.5.1 to 3.5.3 provide historical and current information on the participation and success of our GED candidates. Figure 3.5.1 shows the number of candidates and the percentage of passes on the GED examinations over time. In the early eighties, participation was high but dropped off significantly between 1984 and 1988, increasing again over the last two testing years. Pass rates over time show some variability but tend to hover around 70%.

GED candidates in this Province are compared with their counterparts across the country in Figures 3.5.2 and 3.5.3. In general, GED candidates in Newfoundland tend to be younger than the national average. In fact, over 40% of the 1,177 adults who wrote the GED in 1990 were under the age of 25. An interesting observation is that compared to other Provinces, our GED candidates have among the lowest levels of formal education, yet have a high degree of success on the tests; greater than that of the other three Atlantic Provinces. It would, therefore, appear that a large proportion of early school leavers in this Province have the academic ability to meet high school standards of performance, yet they do not remain in school to obtain certification through the conventional means.

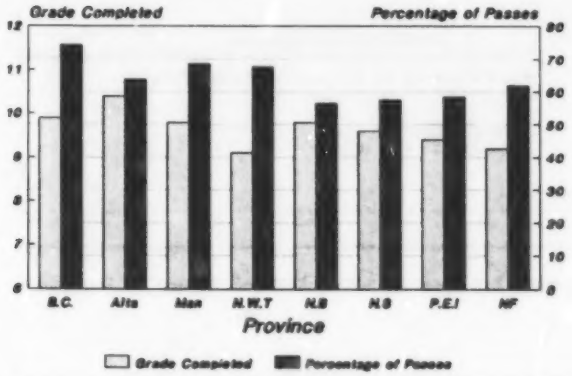
Percentage of Passes for GED Examination by Year



Percentage of Newfoundland GED candidates in different age classes as compared to Canadian average, 1990



Average grade completed and percentage of passes on GED by Province, 1990



◂ *Figure 3.5.1 (top, left): Provincial percentage of passes on GED examination over time*

◂ *Figure 3.5.2 (bottom, left): Average grade completed and percentage of passes of GED candidates by Province, 1990*

▲ *Figure 3.5.3 (above): Percentage of Newfoundland GED candidates in different age classes as compared to Canadian average, 1990*

4.1 How do students feel about the quality of their school life?

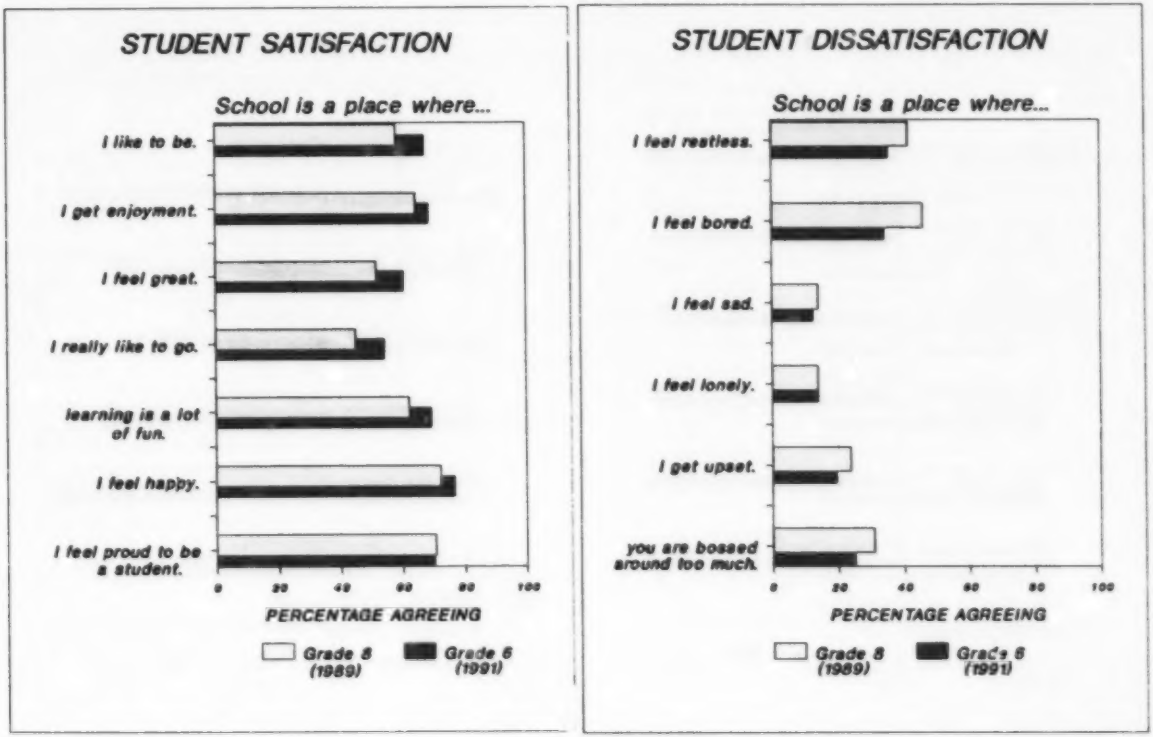
The suggestion that the way a student feels about school life, and how satisfied he or she is within the school environment, can have an effect on academic performance has been the subject of some debate among educational researchers. Some researchers are of the opinion that those students who are satisfied and positive in their outlook on school may have higher levels of achievement. The Department and Memorial University's Faculty of Education have begun some preliminary work in this area to determine the attitudes and opinions of students towards their school life.

In 1990, as a part of the Grade 8 CTBS testing, and again in 1991, in Grade 6, all students completed a survey designed to determine their attitudes towards their school experience.

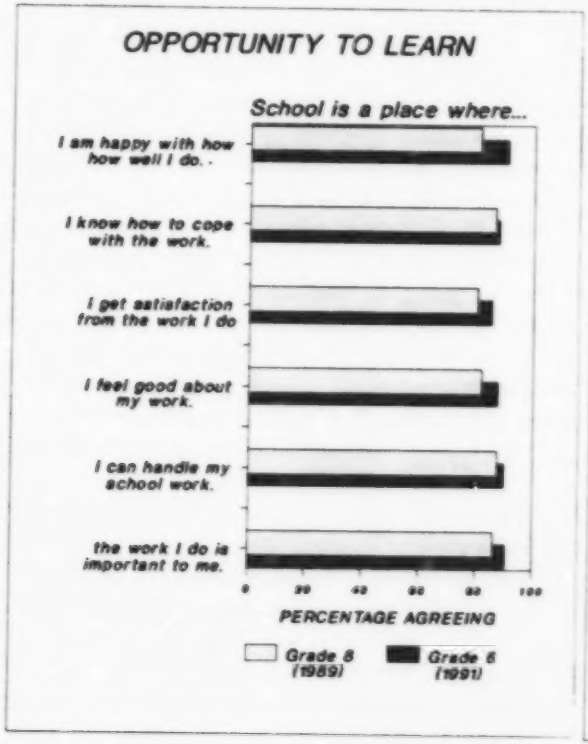
Students were asked to respond to a series of statements beginning with "School is a place where...", by indicating whether they agreed or disagreed. The statements, classified on seven dimensions, and the response frequencies from the survey, are presented in Figure 4.1.1. The graphs show the percentage of Grade 6 students who agree with each statement as compared with the percentage of Grade 8 students surveyed two year earlier.

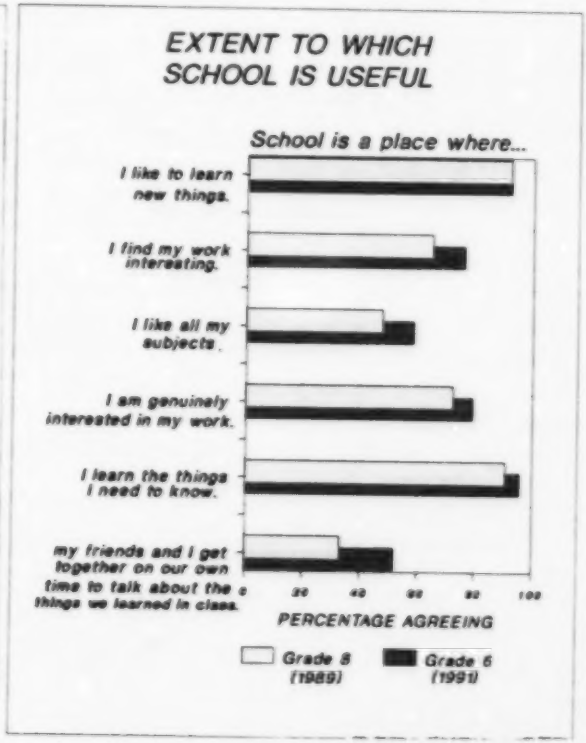
Overall, students at both grade levels are very positive in their opinions on the quality of their school life. As is evident from the bar charts, students respond positively to statements designed to elicit measures of student satisfaction, usefulness of school, opportunity to learn, etc.. However, comparing the data of Grade 6 and 8 students, Grade 6 students tend to be consistently more positive in their responses than the older students.

▸ Figure 4.1.1 (next four pages): Results from the Grades 6 and 8 survey on the quality of school life.

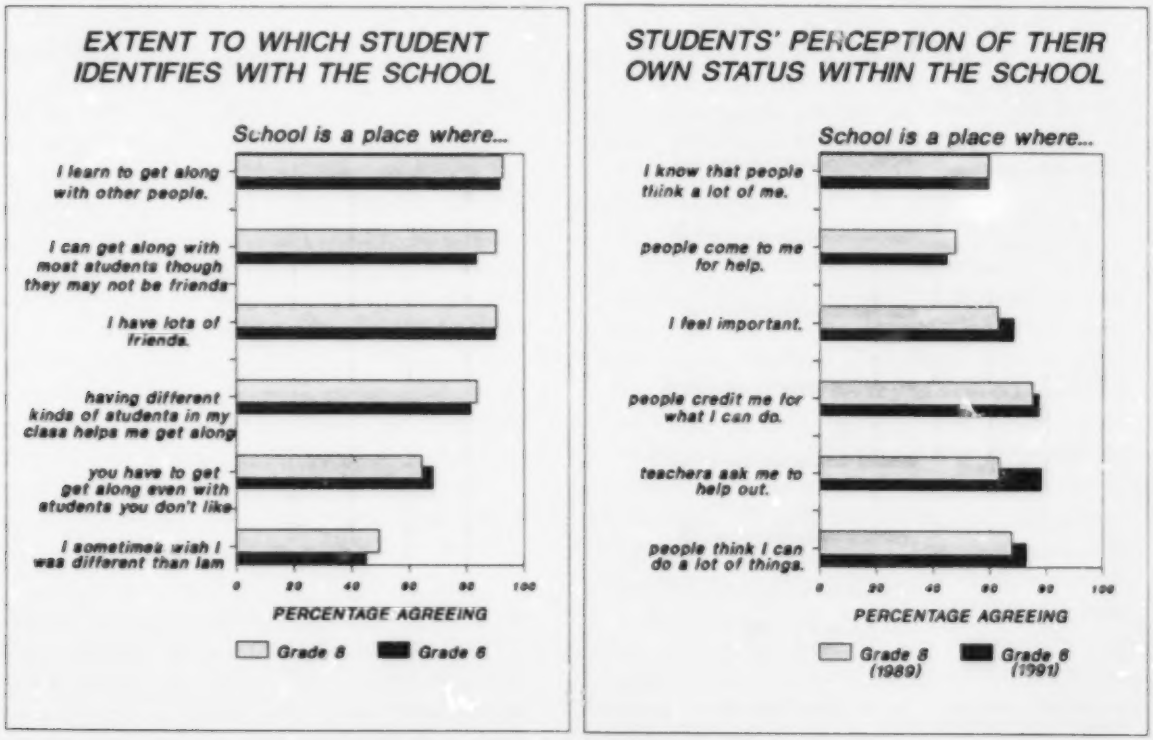


▲ *Figure 4.1.1 (cont'): Results from the Grades 6 and 8 survey on the quality of school life.*

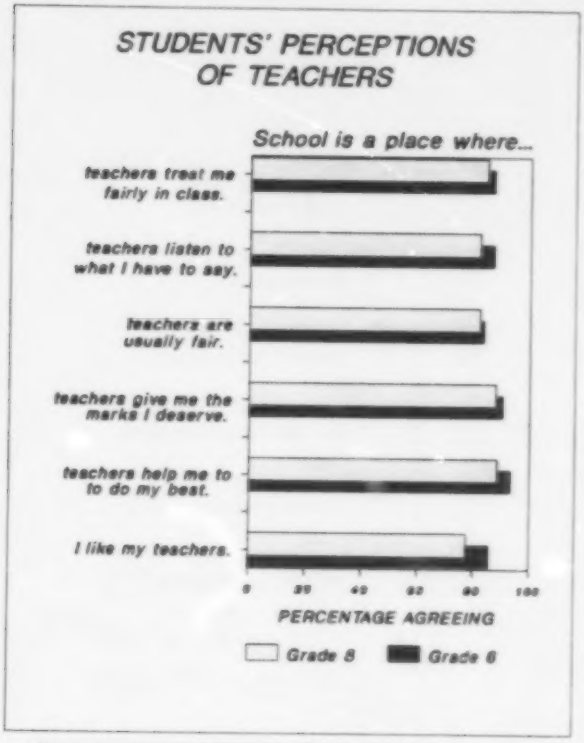

OPPORTUNITY TO LEARN
School is a place where...
I am happy with how how well I do. .
I know how to cope with the work.
I get satisfaction from the work I do
I feel good about my work.
I can handle my school work.
the work I do is important to me.
0
20
40
60
80
100
PERCENTAGE AGREEING
Grade 8 (1989)
Grade 6 (1991)


EXTENT TO WHICH SCHOOL IS USEFUL
School is a place where...
I like to learn new things.
I find my work interesting.
I like all my subjects.
I am genuinely interested in my work.
I learn the things I need to know.
my friends and I get together on our own time to talk about the things we learned in class.
0
20
40
60
80
100
PERCENTAGE AGREEING
Grade 8 (1989)
Grade 6 (1991)

▲ *Figure 4.1.1 (cont'): Results from the Grades 6 and 8 survey on the quality of school life.*


EXTENT TO WHICH STUDENT IDENTIFIES WITH THE SCHOOL
School is a place where...
I learn to get along with other people.
I can get along with most students though they may not be friends
I have lots of friends.
having different kinds of students in my class helps me get along
you have to get get along even with students you don't like
I sometimes wish I was different than I am
0
20
40
60
80
100
PERCENTAGE AGREEING
Grade 8
Grade 6
STUDENTS' PERCEPTION OF THEIR OWN STATUS WITHIN THE SCHOOL
School is a place where...
I know that people think a lot of me.
people come to me for help.
I feel important.
people credit me for what I can do.
teachers ask me to help out.
people think I can do a lot of things.
0
20
40
60
80
100
PERCENTAGE AGREEING
Grade 8 (1989)
Grade 6 (1991)

▲ *Figure 4.1.1 (cont'): Results from the Grades 6 and 8 survey on the quality of school life.*



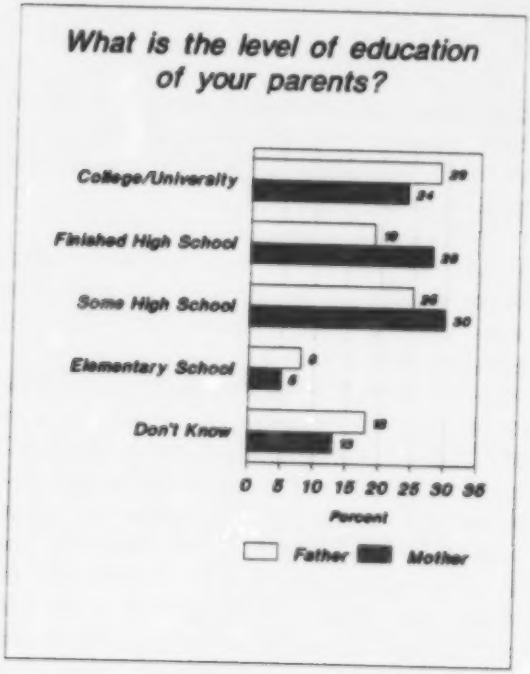
▲ *Figure 4.1.1 (con't): Results from the Grade 6 and 8 survey on the quality of school life.*

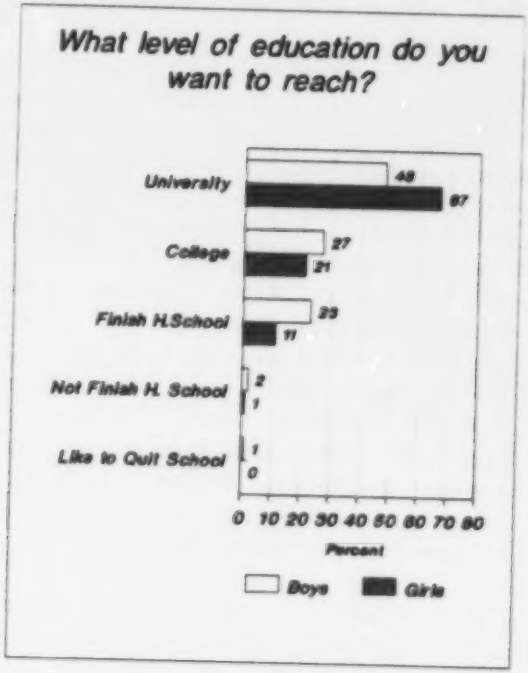
4.2 How do our Intermediate and High School students feel about school?

During the 1991-92 school year, the Department of Education administered a questionnaire entitled "Decisions" to Grade 10 students. The questionnaire was developed and validated by a group of Canadian education consultants and contained questions which were designed to yield significant information related to students' feelings about their education and their future plans. Figure 4.2.1 provides student responses to selected items from the "Decisions" survey. The response frequencies, broken down by gender, indicate that most students are positive about school and school-related subjects, with girls being consistently more positive than boys.

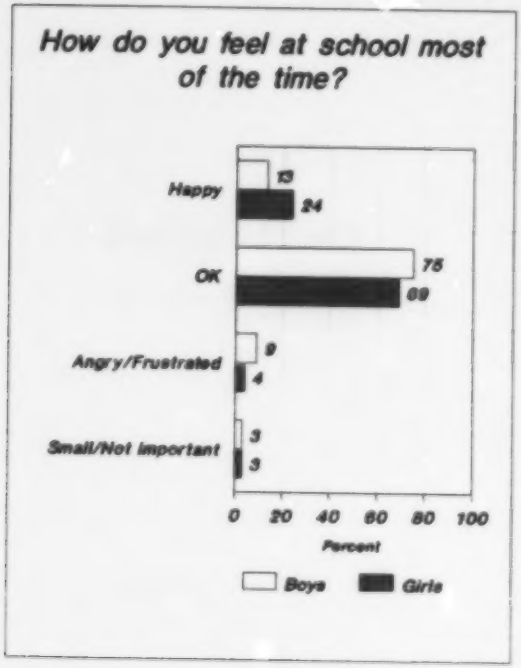
The percentage of girls who said they liked to go to school was significantly higher than boys (46% compared to 17%) Similarly, the percentage of girls who felt they could concentrate and pay attention in class was higher than that of boys and more girls than boys said they felt happy at school most of the time. Boys were slightly more confident than girls about their abilities in class, yet fewer boys indicated that they wanted to reach a university level education (48% compared with 67% of girls).

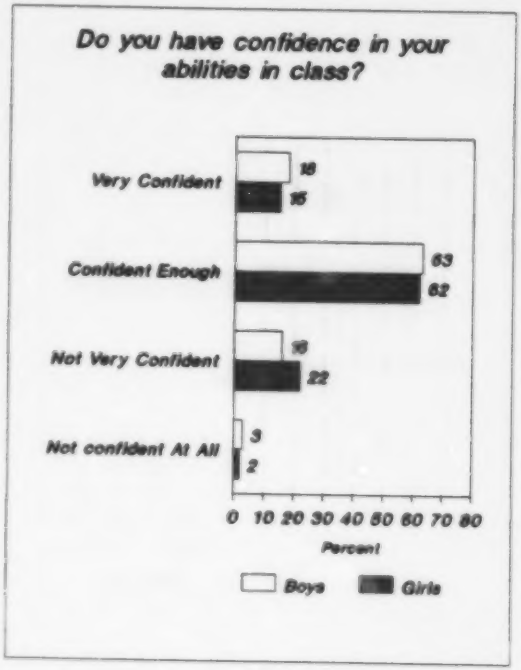
A second "Decisions" questionnaire, which contained many of the same or similar items to that of the high school version, was administered to Grade 7 students concurrently. The data from this survey allows us to make some comparisons between the responses of the Grade 7 students and those of Grade 10 students. Figure 4.2.2 shows the variations in responses on selected items between these two groups of students. The data point out that the younger students are more confident about their abilities in class, tend to be less discouraged by unsatisfactory test results, and have higher opinions of teachers than the older group. In addition, more of the younger students aspire to reach a university level education than the high school group. Follow-up data on this younger cohort would be useful to determine whether this percentage drops.



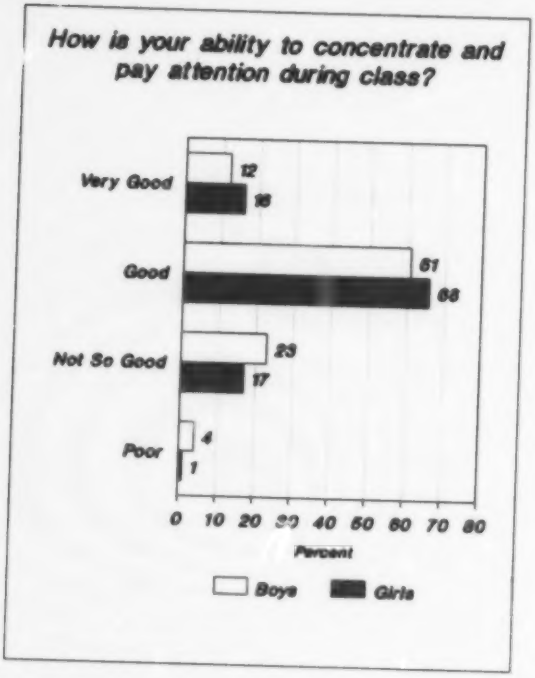


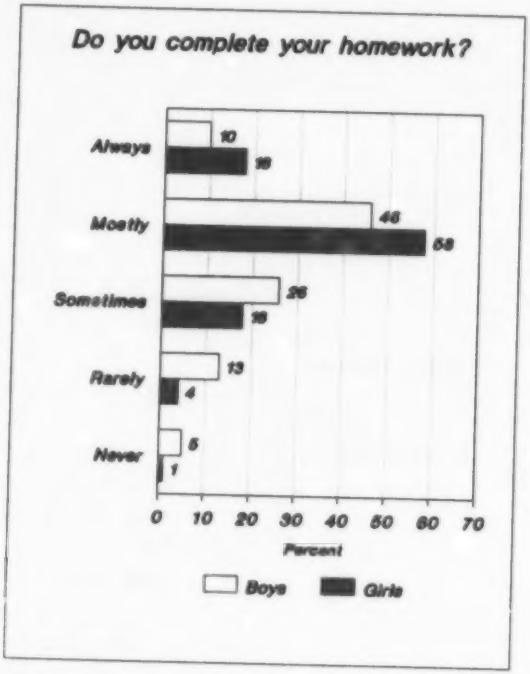
▲ *Figure 4.2.1 (above and next 6 pages): Responses to selected items from the Grade 10 "Decisions" survey.*



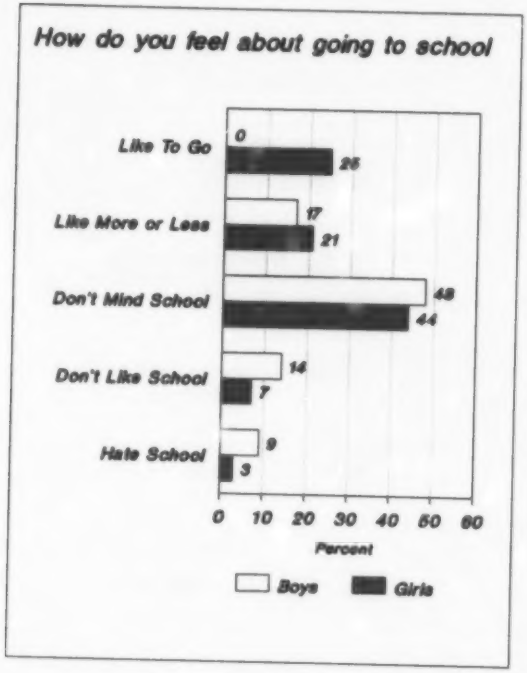


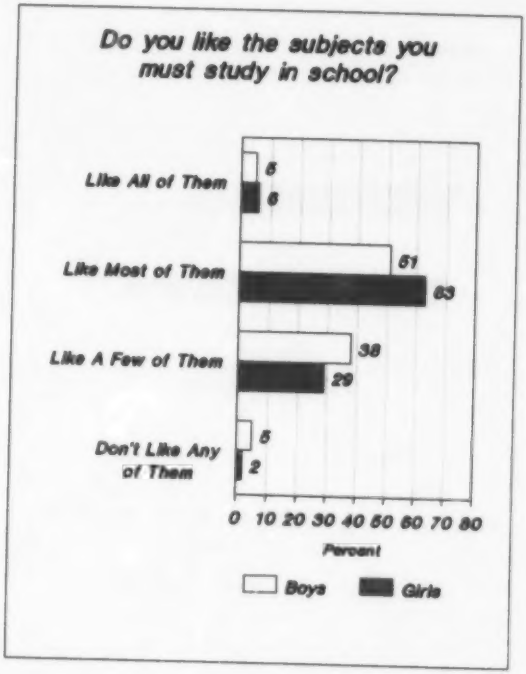
▲ *Figure 4.2.1 (cont): Responses to selected items from the Grade 10 "Decisions" survey.*



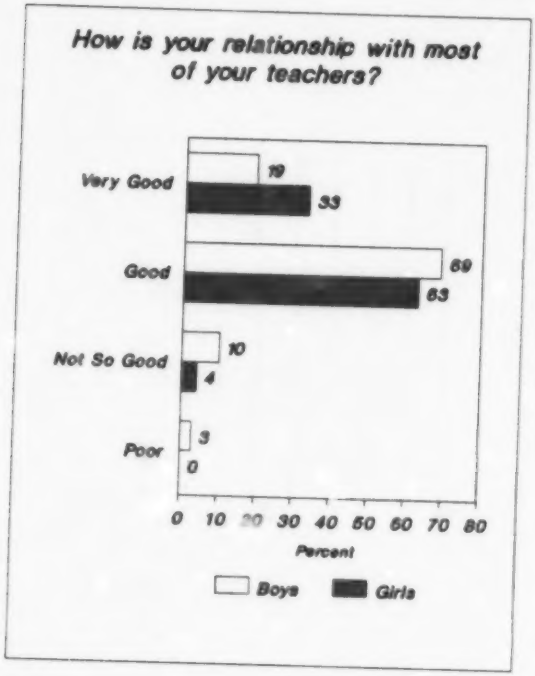


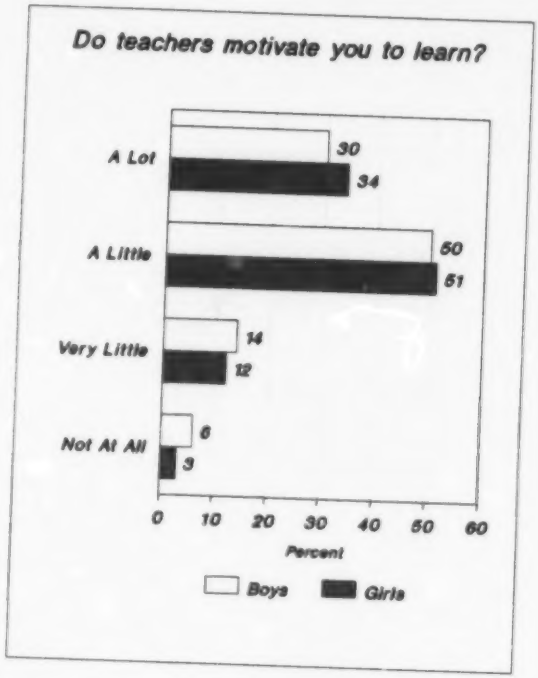
▲ *Figure 4.2.1 (cont): Responses to selected items from the Grade 10 "Decisions" survey.*



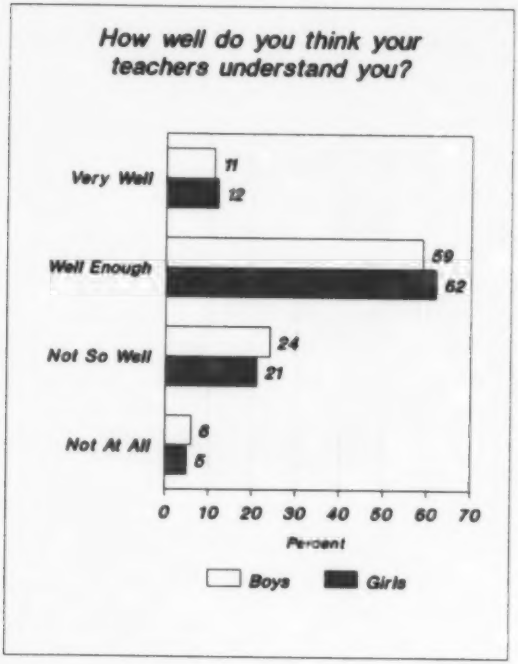


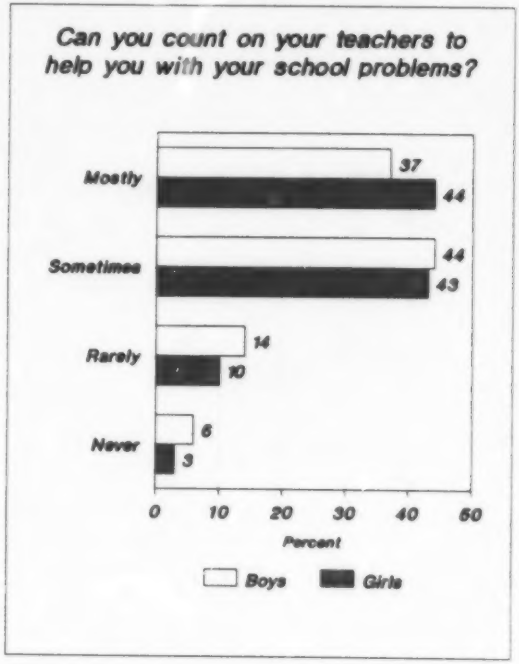
▲ *Figure 4.2.1 (cont): Responses to selected items from the Grade 10 "Decisions" survey.*



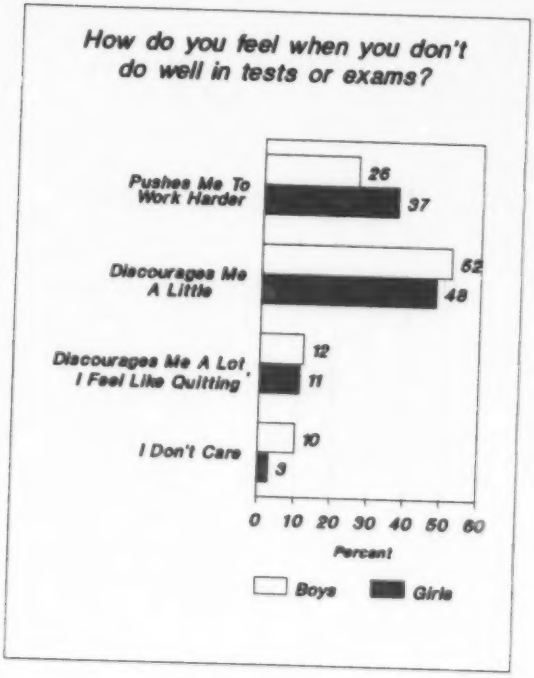


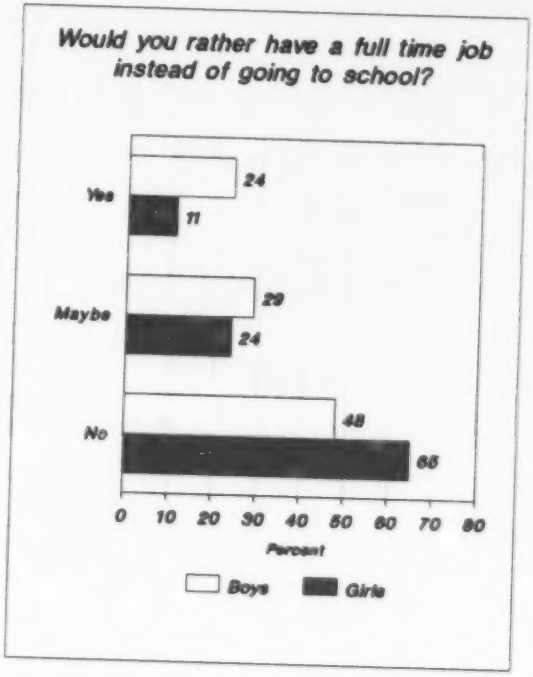
▲ *Figure 4.2.1 (cont): Responses to selected items from the Grade 10 "Decisions" survey.*



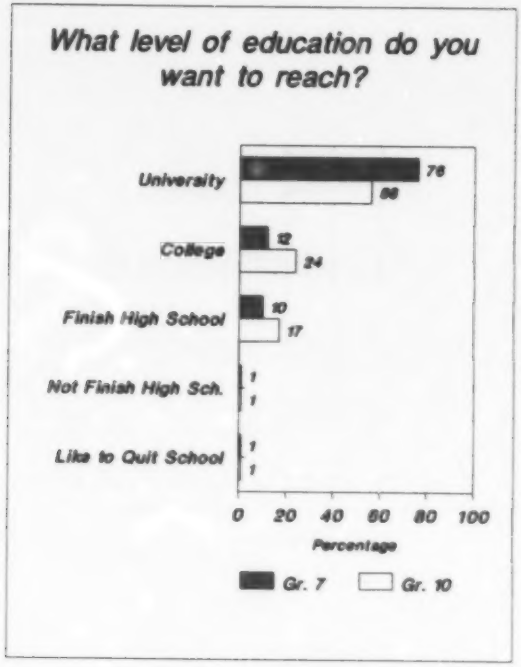


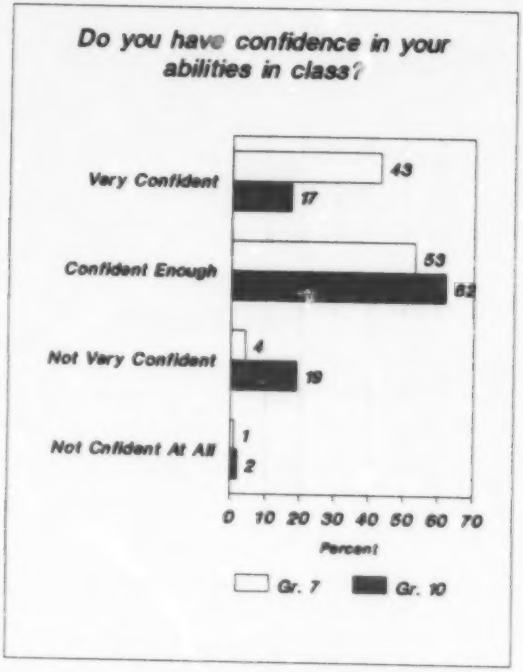
▲ *Figure 4.2.1 (cont): Responses to selected items from the Grade 10 "Decisions" survey.*



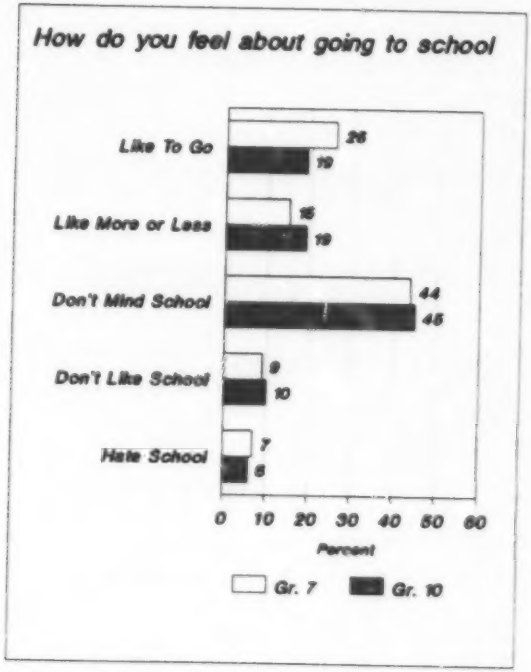


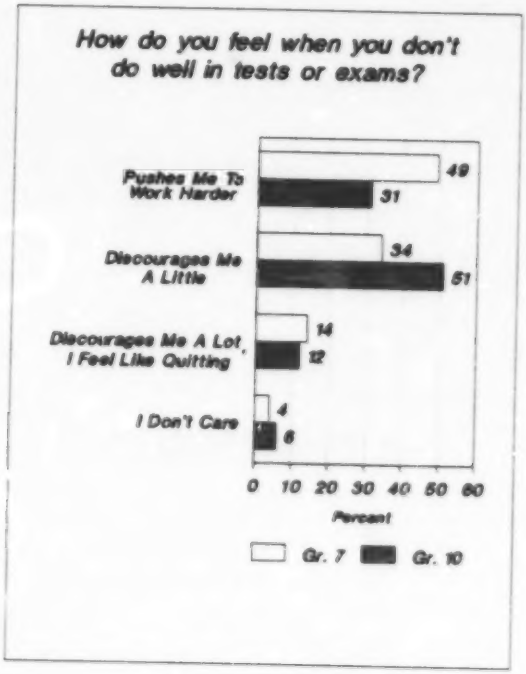
▲ *Figure 4.2.1 (cont): Responses to selected items from the Grade 10 "Decisions" survey.*



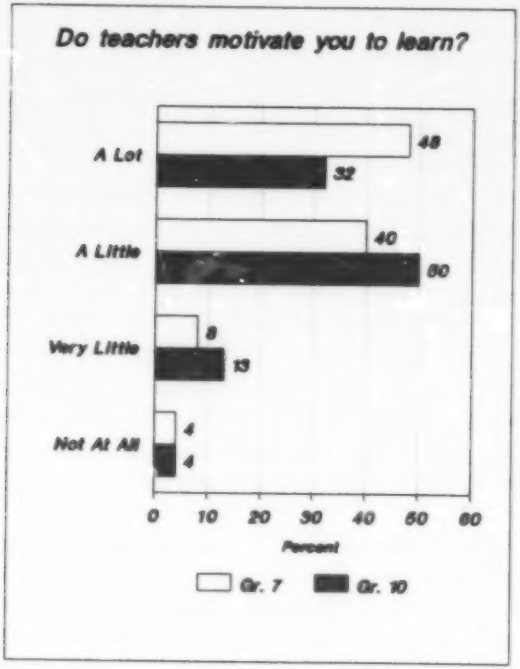


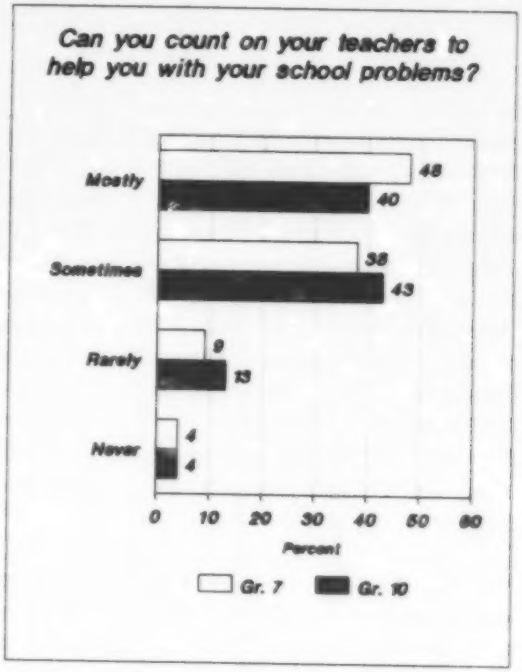
▲ *Figure 4.2.2 (above and next 2 pages): Comparison of Grade 7 and Grade 10 responses on selected items from the "Decisions" survey.*





▲ *Figure 4.2.2 (cont'): Comparison of Grade 7 and Grade 10 responses on selected items from the "Decisions" survey.*





▲ *Figure 4.2.2 (cont'): Comparison of Grade 7 and Grade 10 responses on selected items from the "Decisions" survey.*

4.3 What do our students know and feel about AIDS and related issues?

In 1988, a province-wide sample of Grade 11 students participated in the **Canada Youth and AIDS Study** sponsored by Queen's University. This study was designed to assess the knowledge, attitudes, and behaviours of Canadian youth with respect to AIDS and other sexually transmitted diseases, education being considered the primary strategy to prevent the spread of the disease. Since that time, the Department of Education introduced the **Adolescence: Relationships and Human Sexuality** course in Grade 9 which was designed, amongst other things, to address a number of the issues examined by this study.

In 1991, the same questionnaire was administered to another sample of Grade 11 students to see if the knowledge, attitudes, and opinions of these students differed significantly from the same age group four years earlier. In addition, responses were analyzed to see if any differences in response patterns were related to whether students had or had not completed the Adolescence: Relationships and Sexuality program in Grade 9.

In the first administration, responses of Newfoundland students were compared to the total Canadian population. The second administration in 1991 permits a comparison of provincial responses over time.

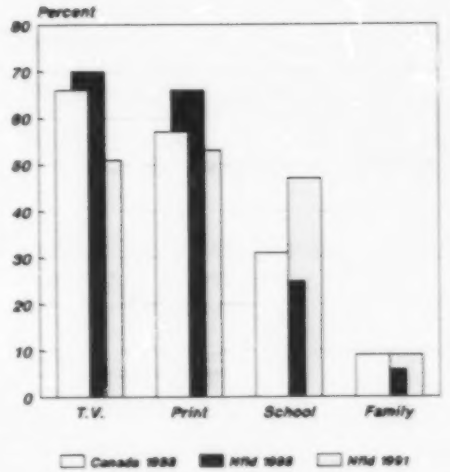
Results of the two surveys show that, compared to 1988, the school now seems to be playing a greater role in providing students with information on AIDS and related matters.

Since 1988, Grade 11 students appear to have raised their level of knowledge overall about AIDS, the largest improvement being related to knowing that someone can have the virus for up to seven years without any outward manifestation of the disease. Comparing the knowledge level of those who did/did not do the Grade 9 course only showed a significant difference for the item "all homosexual men carry the AIDS virus".

Many of the questions included in the survey related to students' perceptions of themselves and others, including peers and parents. From both administrations, we see that about 70% of students feel that the future looks good to them. However, the percentage who often feel depressed, who lose sleep worrying about things, and who sometimes have thoughts about committing suicide, are disturbing. The increase since 1988 of students who have these feelings should also be of concern.

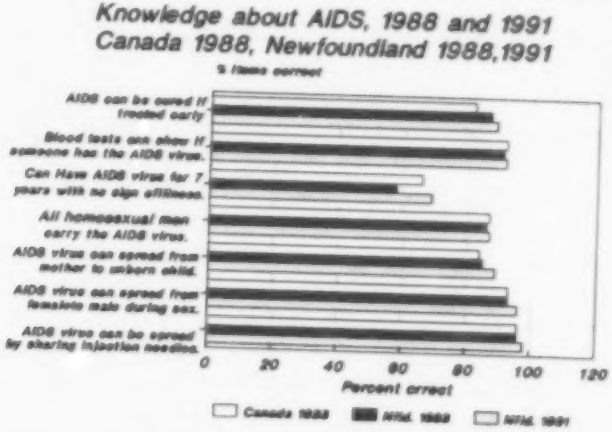
As stated earlier, over 70% of students today consider that they have a happy home life. However, there is a decrease in the number who ask their parents for advice on serious matters. This is accompanied by a slight increase in the numbers who do not value their parents' opinion of them. The vast majority report that they do not discuss their problems even with their peers despite the fact that over three quarters feel their friends often ask them for advice and help. Few students feel they are out of step with people of their own age.

Youth's Main Source of Information About AIDS

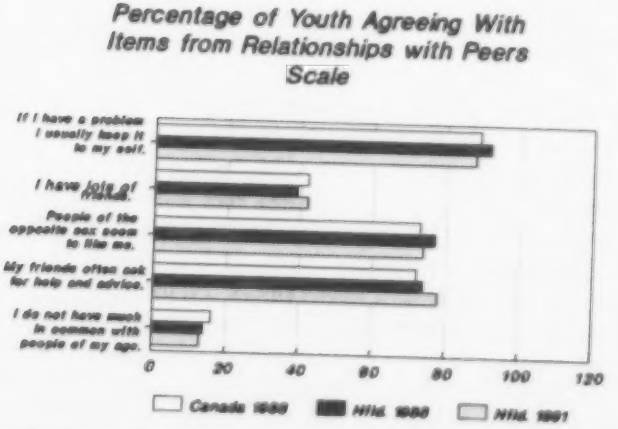


Source: Canada Youth and AIDS Study 1988 and Replication Study 1991

▲ *Figure 4.3.1 Youth's main Sources of Information on AIDS*

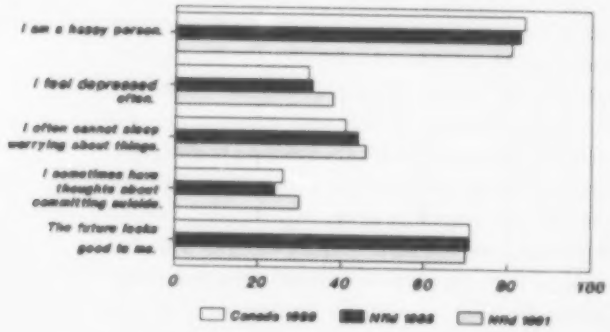

Knowledge about AIDS, 1988 and 1991
Canada 1988, Newfoundland 1988,1991
% items correct
AIDS can be cured if treated early
Blood tests can show if someone has the AIDS virus.
Can Have AIDS virus for 7 years with no sign ofillness.
All homosexual men carry the AIDS virus.
AIDS virus can spread from mother to unborn child.
AIDS virus can spread from femalete male during sex.
AIDS virus can be spread by sharing injection needles.
0
20
40
60
80
100
120
Percent correct
Canada 1988
Nfld. 1988
Nfld. 1991

▸ *Figure 4.3.2 : Youth knowledge about AIDS.*


Percentage of Youth Agreeing With Items from Relationships with Peers Scale
If I have a problem I usually keep it to my self.
I have lots of friends.
People of the opposite sex seem to like me.
My friends often ask for help and advice.
I do not have much in common with people of my age.
0
20
40
60
80
100
120
Canada 1988
Nfld. 1988
Nfld. 1991

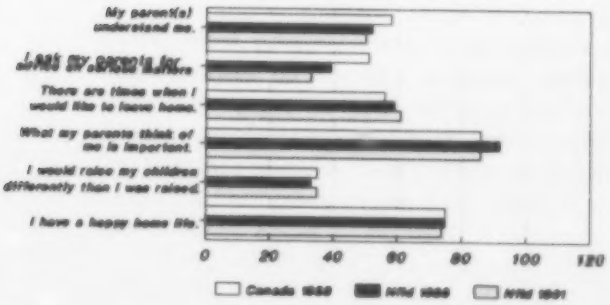
▸ *Figure 4.3.3 Percent of Youth Agreeing with Items from Relationships with Peers Scale 1991*

Percentage of Youth Agreeing With Items from Mental Health Scale



▸ *Figure 4.3.4 Percentage of Youth Agreeing with Items from the Mental Health Scale*

Percentage of Youth Agreeing With Items from Relationships with Parents Scale.



▸ *Figure 4.3.5 Percentage of Students Agreeing with Items from Relationship with Parents Scale*

Although this document includes only a fraction of the total information available on the educational system, the information included here should give a responsible indication of some major areas of the systems' strengths and weaknesses. *Profile '91* focuses on the measurable output side of schooling rather than on the inputs, the process, the demographic context, or the long term outcomes. In the long term, the Department envisages a series of indicator documents which profiles the system in a much more comprehensive way and focuses on some of the interactions amongst variables.

In essence, this is an important step in a comprehensive understanding of the success of the Province's education system. Its usefulness as a tool in helping improve the system, however, will only be ensured if the information contained herein is read, discussed, debated, and used in a constructive manner. To ignore is to put the system at risk.

achievement - the quality of a students work.

achievement monitoring - reviewing all test and school performance information and extracting relevant data for use in program development, school improvement, instructional strategies, and decision making.

affective domain - the area of one's feelings, attitudes, or emotions.

Canadian Tests of Basic Skills (CTBS) - an extensive norm-referenced, standardized test that measures student performance in several basic skill areas.

cohort - a group of individuals having a particular characteristic in common. (e.g., age, year entering school).

composite - the average score calculated based on a number of subtest scores.

criterion-referenced test - a test that measures a learners performance in absolute terms based on a given content area (e.g., based on a criterion of some set number of content items correct regardless of the performance of other students).

diagnostic test - a form of achievement designed to identify students in need of remediation.

early French immersion - a program from kindergarten to level III (Grade 12) with approximately one hundred percent of instruction in French with the percentage decreasing somewhat with the introduction of Language Arts and other subjects in English.

elementary student - a student in kindergarten to Grade 6.

eligible to graduate - describes a student who is attempting to complete appropriate courses in sufficient numbers to satisfy all graduation requirements.

grade-equivalent - a description of student performance on the CTBS in terms of the approximate grade level at which the performance would be average.

graduate - a student who has satisfied graduation requirements.

graduation - attaining 21 credits in core courses and an overall total of 36 credits; not less than 20 in levels II and III courses and not less than 9 in level III courses in a Newfoundland senior high school program.

graduation rate - the number of graduates expressed as a percentage of the Grade 8 cohort four years earlier adjusted for net migration.

high school certification - the official verification of high school achievement.

indicator - a statistic which gives information on the performance or health of a system.

inservice - short teacher training sessions

intermediate student - a student in Grade 7 to Grade 9.

late French immersion - a program from Grade 7 to level III with approximately seventy percent instruction in French in grades 7 and 8 with the percentage decreasing somewhat as the students progress through the grade levels.

net migration - the difference in population between students leaving and students entering the Province.

norm-referenced test - a test that produces a score that defines performance in terms of an individuals standing relative to a norming group (e.g., percentile rank).

norming group - a large representative group of individuals who complete a test and on whose scores the test is standardized. Performance of students or groups of students are expressed relative to the performance of this norming group. For example, the 50th percentile means that 50% of students in the norming group scored lower on the test.

participation - enroled in school.

participation rate - the number of students in school expressed as a percentage of the corresponding age cohort in the total population.

performance indicator - an item of information collected at regular intervals used to track performance or achievement.

PR - percentile rank. The term used to describe student performance on standardized tests relative to a nation-wide norming group. The PR refers to the percentage of the norming group who scored lower on the test.

process skills - the skills associated with but not limited to observing, classifying, quantifying, communicating, inferring, predicting, formulating hypotheses, defining operationally, controlling variables, interpreting data, experimenting, and formulating models.

program coordinator - a member of school district office staff who is responsible for the effective implementation of programs in one or more subjects (e.g., language arts, science, etc.).

program evaluation - a judgement on the worth of a program based on comparative information that has been collected and interpreted.

PTR - pupil-teacher ratio.

public examinations - year end examinations in certain high school courses set, administered and graded by the Department of Education.

retention - the process of retaining students in school from year to year

standardized testing - the process of using uniform tests to compare achievement.

subtest - one of several smaller tests on specific areas subsumed under the Canadian Tests of Basic Skills.

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